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ABSTRACT

This volume consists of the proceedings of two sessions--"Quantitative Data and Research on International Migration" and the follow-up workshop on this topic--held within the 1978 convention of the International Studies Association plus an addendum of related research notes. The papers present immigration as a data-producing process yielding a wealth of information which must be centralized, analyzed, and disseminated. The papers include the following: (1) The Study of the New Immigration: Some Political and Methodological Deterrents (R. S. Bryce-Laporte); (2) Sources of Data for the Study of International Migration (D. Heisel); (3) Sources of Data for the Study of U.S. Immigration (E. P. Kraly); (4) Critical Issues in Using Government Data Collected Primarily for Non-Research Purposes (G. Cardenas); (5) Some Thoughts on the Study of Immigration Patterns within the Modern World Economy: Established and Alternative Data Sources (E. M. Petras); (6) Some Data and Methodological Issues Regarding Research on the Economic Progress of Immigrants (B. R. Chiswick); (7) Greener Pastures: American Expatriation and Expatriates (V. B. Shaw); (8) A Residential Survey of Illegal Aliens (L. Hunt); (9) Discussion (of the preceding three papers) (C. B. Keely); (10) Note on the Spatial Diffusion of Nurses from the Commonwealth Caribbean to Britain: Quantitative Methods and Migration Studies (S. B. Jones-Hendrickson); (11) Issues in the Measurement of External Migration (G. W. Roberts); (12) Note on Limitations of Data and External Migration in the Eastern Caribbean (G. W. Roberts); and (13) Quantitative Immigration Data, Scientific Knowledge and Public Policy: Possibilities, Limitations and Interrelationships (S. R. Couch). Three appendices give conference information, lists of publications, and notes on the contributors. (VM)

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Quantitative Data and Immigration Research

Edited by

Stephen R. Couch

and

Roy Simón Bryce-Laporte

with the editorial assistance of

MaryJane E. Kubler

RIIES Research Notes No. 2
Research Institute on Immigration and Ethnic Studies
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The Research Institute on Immigration and Ethnic Studies, founded in 1973, is a part of the Smithsonian's Center for the Study of Man. The Research Institute focuses on immigration flows which have been affected by legislation since 1965. It also explicitly includes American extraterritorial jurisdictions among its scholarly concerns.

Staff

Roy S. Bryce-Laporte, *Director*
Stephen R. Couch, *Research Coordinator*
Delores M. Mortimer, *Program Coordinator*
Betty Dyson, *Administrative Assistant*
MaryJane E. Kubler, *Research Assistant*
Constance M. Trombley, *Secretary*

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PREFACE

The Research Institute on Immigration and Ethnic Studies (RIIES) was founded in 1973, as part of the Smithsonian Institution, whose original and still standing motto is "the increase and diffusion of knowledge." Accordingly, RIIES assumed among its principal responsibilities the scholarly stimulation of inquiry and the dissemination of resulting information and ideas on human immigration into the United States and its extra-territorial jurisdictions, with special but not exclusive emphasis on movements which relate directly to the crucial legislative and policy changes of 1965 having to do with the entry of aliens for permanent residence into this country. In compliance with such a mission, RIIES has succeeded in sponsoring various kinds of study projects and various magnitudes and formats of sessions on the subject of the "New Immigration." Most of these are subsequently reported and circulated in the Institute's own publication series or on particular occasions through other channels. (See Appendix B.)

It is against this background that the present volume was organized and published. More particularly, it is the product of a decision made by RIIES to participate as a unit within a national convention of the

International Studies Association held in Washington, D.C., in February of 1978. The contents of this volume represent proceedings of two sessions held at the convention (see Appendix A), and an addendum of related research notes which were invited by the Institute for inclusion to complement the original contributions.

This collection is the second published by the Institute on the subject of research data, conditions and methodology. Its emphasis on quantitative materials and methods complements the earlier volume which stressed exploratory qualitative fieldwork. As such, it not only represents a recognizable advancement in the methodological concerns of the Institute but also an updating of the direction and level of development of research activities and concerns in the study of the new immigration.

The volume as well as the workshops were part of a general staff assignment. The principal coordinating responsibility for the volume and the related workshops was charged to Stephen R. Couch in his capacity as Research Coordinator and Social Science Analyst at RIIES. He was responsible for maintenance of the level of scholarship in the writing as demanded by the subject and as permitted by circumstances. The original idea and purpose of the seminar as well as the larger program of which it was a part were the conceptions of Roy S. Bryce-Laporte, Director of RIIES. He provided necessary consultation and exercised close stewardship over the

various stages of development of the seminar and the publication of the proceedings which have culminated in the present volume. Important technical input for the final realization of the volume was made by Betty Dyson, Delores M. Mortimer, Constance M. Trombley, and Vera Wells, and special recognition is due MaryJane Kubler for her editorial assistance.

RIIES also wishes to thank all the participants, contributors and cooperating agencies; e.g., the International Studies Association, the Sheraton Park Hotel, and various offices of the Smithsonian Institution for their cooperation in this endeavor. In concluding, we remind the readers that the contents of the volume in no way reflect policies of the Smithsonian Institution, though we do believe them to be consistent with the mission of the Institution. In fact, we invite a more than cursory or isolated reading of the publication, since we think that it contains extremely important statements on the subject of its focus.

Stephen R. Couch, Ph.D.
Roy S. Bryce-Laporte, Ph.D.

INTRODUCTION

THE STUDY OF THE NEW IMMIGRATION: SOME POLITICAL AND METHODOLOGICAL DETERRENTS

Roy S. Bryce-Laporte

I

Whether hitherto unnoticed, underestimated or simply ignored, the subject of the "New Immigration" has now become one of the burning issues of the 1970s. In observant circles it is believed that its rapid ascendancy in visibility or notoriety is not simply a consequence of its own dynamics or mystique but moreso the product of very intense anti-immigration politics. The ascendancy of "New Immigration" as a public issue has been paralleled by an increase in voice, visibility, influence, and advantage of a hardworking corps of special interest groups or individuals and self-serving bureaucracies and politicians. They are buttressed by a generally unsympathetic, sensational public media and seemingly growing establishment of entrepreneurial consultants and entrenched bureaucrats. Together these forces have succeeded in stirring alarm and confusion in the public's mind about contemporary immigration. Such forces lobby legislation, influence policy and attempt to coopt even the academic disciplines. In their proselytization they not only strive to impose their anti-immigration views but in so doing they contribute, purposefully or otherwise, to the distortion of the image of the New Immigration, and of course, its immigrants and source countries. This intense political campaign in opinion-formation inadvertently results in dissemination of untruths and poor knowledge without the benefit of reasonable patience, proper procedures, or reliable data -- at least from social scientific standards.

Without adhering to the idea that pressing social problems should be left untouched until a proven solution has been found, it is nevertheless appalling to observe (1) the suddenness and vehemence with which the "New Immigration" has been exalted into a pressing domestic problem which then requires very expeditious solutions; (2) the manner in which new immigrants (especially the illegals among them) are first isolated and then accused as the cause of a wide range of domestic problems such as environmental abuse, overpopulation, underemployment, crime, welfare, ethnic or international tensions, etc.; and (3) the clever misuse of language, logic, scientific methodology or data to influence the direction of immigration policies and laws against people and sometimes countries with the gravest disadvantages for defending themselves against the law or the lawless in this society.

II

The Research Institute on Immigration and Ethnic Studies was founded in 1973. It assumed the very serious intentions of stimulating, facilitating, disseminating, and sometimes conducting research or providing consultation on the new immigration. Consequently, the predominant position given to research and data in the Institute's public activity was purposeful and programmed. Fortunately it has turned out to be productive. As early as 1975, the year of RIIES' first planning conference for the Bicentennial Project, a general consensus was arrived at by the participants that there was a wide range of data which needed to be collected and analyzed on recent U.S. immigration, but that most of that data were not easily available, and if available, they were not immediately amenable to scientific research. In that conference I proposed that immigration be viewed as a *data-producing* process, with a *life history* of its own, made up of relatively discrete legal stages at which immigrants encountered data collecting agencies, beginning with their applications for visas and other requirements, and ending at the point of their (or their offspring's) departure by death or perhaps geographic mobility out of the country. Such encounters and processing generate the kind of data that Paul Meadows chose to call in this planning session *career-specific data*, meaning by this that the immigration process (or for that matter the lives of immigrants) was comprised of stages in a career or trajectory which in turn generated codifiable, quantifiable and aggregate data. Earlier efforts by the Institute to have researched the state of data along that trajectory have since been superseded by the work of Ellen Kraly.

She has written a summary of her research for this collection.[2] Another point of importance made in that conference was the multi-level and interrelated character of immigration and also of immigration policy; e.g., global, international, national, local, and collective-individual.

Repeatedly RIIES has made claims for the centrality of these aspects of the "New Immigration," and has called for their further consideration in determining the crucial levels of implications and interrelations which must be observed in research and policy studies. As will be noted, many such points are expressed independent of our interventions in many of the essays of this collection, thus giving some credence and legitimacy to concepts in the study of immigration which have emerged as original parts of the thinking and declarations of the Institute.

III

The papers in this volume singly or in varying combinations represent efforts by academic researchers in the main, and some of their non-academic colleagues, to deal with specific aspects of research in the quantitative empirical study of the "New Immigration." The volume is comprised of three main sections, plus an introduction and a final conclusion. The first principal section is on sources of quantitative data and their utilization; the second on the propensity and limitations of quantitative data used in on-going or recent research on immigration; and the third set is comprised of research notes on the condition or sources of local/regional data and on techniques or strategies for obtaining or using such data in the Caribbean as an area of high emigration. Distinct to the contributed character of the main papers and the section discussion, the opening and closing statements are by RIIES personnel.

Donald Heisel begins with a telling reminder that while much is known about the kind of data needed for more comprehensive, sophisticated quantitative research in international immigration, the arrangements and formulas for obtaining such data continue to pose difficulty. As he sees it, the two major areas of difficulty are (1) the imbedded legal nature of immigration, definition of citizenship and determination of conditions of entry or departure across national territories, and (2) the variation in status, character and definition of immigration itself. He discusses prominent instruments utilized to gather relevent data on international migration and proceeds to establish four major gaps which persist today: (1) data and analysis of emigration; (2) objective quantitative data on events which are subjects of direct governmental policy; (3) absence of simple, unique and analytical useful distinctive long and short term emigration; and (4) methods of obtaining reliable, representative data on undocumented migrants.

Ellen Kraly's paper concentrates on Federal data sources in the continental United States. Again, the reader obtains initial evaluation of sources which provides guidelines to the propensity and limitation of the Federal data. She concludes that the United States has vehicles for collecting both flow and stock data, but finds many problems and limitations not contrary to the general statement and observation made by Heisel on the world situation. Some, not all, of the problems stated by Kraly are peculiar to the United States: (1) the lack of coordination between data sources and the non-integration of data; (2) the limited exploitation or publication of available data; and by implication (3) the limited knowledge of the pattern, impact and complicated socio-economic significance of immigration to the United States.

Gilbert Cardenas's paper is principally a critique but in the process raises the larger issues which underlie RIIES's own uneasiness with the current state of the art. He concentrates on the Immigration and Naturalization Service (INS) and therefore on the United States, but still manages to reinforce observations made by both Heisel and Kraly. For Cardenas there is a basic conflict between scientific research and research motivated by political, more specifically governmental, interest. Hence, he finds that INS produces data and reports that are rather selective and limited to what is perceived as essential to its principal self-serving interests as a social control agency of the United States government. INS works enjoy an aura of legitimacy without having to release statements of relaibility since they are viewed as "official." Its reports and data are used by many academicians with little question or effort to correct these errors. Additionally, INS works are used by certain higher politically appointed segments of its own heirarchy and by its sympathetic public for stirring anti-immigration sentiments, lobbying for procontrol legislation/ policies and stirring fear among illegals and citizens alike. Of course, insofar as many of these latter uses involve public information, they imply some degree of collusion, sympathy or naive acceptance of all INS works or reports as legitimate and accurate. This is true of public media as well. Cardenas leaves us with no explicit solution to these disquieting contentions beyond an inference that they will have to be ethical-political in nature.

Elizabeth Petras's paper goes in the other direction. Rather than a critique, it is a contemplative treatment of research directions and needs. It is concerned less with United States immigration policy per se and more with the world economic system and within that context Caribbean-U.S. migration. In this paper Petras reviews the high points of the newest macrosociological paradigm on core-periphery relations within a world system concept -- a theoretical-historical approach which has not yet produced a parallel methodology. It therefore lacks data, format and formulas, reports and analyses or even the authorities and experts to provide such apparatus. At this point it lacks even a fully developed logic by which to satisfy its methodological needs and the empirical testing of its postulations and hypotheses. Whatever, Petras indicates that there is an undisguisable paucity of macro-data and empirical works in the United States on core-periphery relations at the world system level compared to the abundance of vital psychological and other macro-information on immigrants to the country. But even the latter was criticized by her in her oral presentation which, in summary, pointed out that for reasons of legal protection, data aggregation or document confiscation, very useful data on new immigrants are lost at the very beginning of the process in the consulates of source countries. Petras's contribution ends with a set of suggested indices, techniques and sources that may be useful in coming to grips with the empirical needs of the Wallersteinium model, which purports to be a more revealing emergent theory for explaining the historical-economic role of world labor migration. These range from use of historical time series data and longitudinal surveys of movement and mobility to small sample, anecdotal studies; from massive quantitative to minute qualitative analyses of immigrants; from government and other established sources to the reliance on creative serendipitous experiences of social scientists.

Two of the second set of papers reflect actual research carried out based on Federal data, revealing as they do both the innovation of the scholars and the limitations of data with which they must work. Barry Chiswick's paper derives from a larger study focusing on the earnings of adult, white males immigrating to the United States. Using principally census data, Chiswick demonstrates the operationalizing ability and statistical sophistication which are necessary to deal with particular variables or hypotheses having to do with immigrant males. Distinct then to his two predecessors, he finds some of the limitations are surmountable by way of adequate conceptualization, adjustments and inferential statistics rather than requiring a radical departure. Chiswick tries to provide us with an extended list of examples of other research problems that in his opinion can be resolved by creative use of census data as opposed to other research needs which can only be pursued by certain changes or additions to the 1980 or later censuses or combining of efforts among pertinent Federal data gathering agencies.

Van Shaw's work in a general way addresses one of two major gaps in world migration data recognized by his colleagues -- that of emigration. More specifically, he is concerned with the study of expatriation and expatriates abroad. Literature on the subject is limited, and statistical data are obtainable from INS Reports and unlisted tallies from the State Department. The legality and variability in the time is amply demonstrated and the interplay of legal and statistical categorization is one problem faced in the study in terms of inclusion, and also sub-typing and all those steps and conclusions that follow. Shaw also encounters difficulties in obtaining details about the return of expatriates (a form of immigration data, I might add) not unlike the "illegals." Shaw argues the case for large scale surveys of this population, but of greater notice are the kinds and scope of questions he poses which are not limited simply to policy matters or even the population per se, but transcend both toward a fuller understanding of American society.

The last contribution to the section is not a paper in the traditional sense but a transcript of an oral presentation by a former consultant to a firm contracted by INS to study illegal or undocumented aliens. Leon Hunt briefly outlines some of the objectives and assumptions of the study, the methodological difficulties it confronts and some of the approaches by which these difficulties are to be circumvented. Having come into realization as a result of assumptions, estimates, loaded exaggerations, and self-serving bureaucratic objectives in the first place, there is need to question the study's findings, its own legitimacy and the conventional limitations of "knowledge" on illegal immigration. After all it is not simply a behavioral violation of laws but an aspect of the larger process of current immigration and operates within the contexts of certain policies and relations which occur on both national and international levels. With good reasons grave suspicions have been raised about the study's confidentiality in ethical as well as methodological-epistemological terms. This study was funded to study the "illegal" population for a law enforcing government agency which views the maligning and persecuting of that particular population as one of its principal roles and self-serving interests. This arrangement creates a plethora of problems for the contracted agency ranging from rapport with the subject population and reliability of answers to the acceptability of its findings and the legitimacy of its role in the eyes of a wider audience of professional or lay publics. Additionally, Hunt concedes a problem of sampling due to the undocumented character and unknown distribution of the subject population and its surreptitious, vulnerable and illegal status as immigrants. Obviously, this kind of study and the kinds of difficulties it presents would be less likely to emerge were the population legal or were the illegal population known or believed to be small. But the underlying difficulty is more than a matter of legal violation on the part of the immigrants or inefficient policy control by border or transit authorities. It involves the absence of data on internal migration and emigration as well. Too many researchers rely on United States immigration, visa and census figures to postulate emigration flows from source countries; too many others rely on arrest or deportation data for estimating illegal residents. The questions remain, however, whether (1) a contract from an agency vested with law enforcement duties or the methods outlined in the presentation are the best alternatives available; and (2) if any arrangements or formulas can be instituted for the independent but efficient monitoring and computing of this kind of population or data in the future.

Turning to the research notes on the Caribbean, we see a common, clear priority given to methodological problems related to emigration over illegal immigration. It is not that illegal immigration does not occur in the Caribbean; it does, but in rather specific countries; i.e., Bermuda, Trinidad-Tobago, the Bahamas, Puerto Rico, the U.S. Virgin Islands, Venezuela, Panama, and now the Dominican Republic. The illegal flow to these countries may be due in part to political problems in the neighboring countries but the larger reasons are directly economic; e.g., relatively more open opportunity structures actual or perceived, and increased opportunity through residence in such host countries to eventualy legal or illegal entry into the United States proper. Hence, even those very countries that serve as targets or conduits of intra-regional immigration, eventually must face the fact that the more problematic issues are of volume and character of emigration which is believed to constitute a drain of productive, talented and trained persons, perhaps a temporary safety valve against internal economic-political crises, but also a possible investment abroad in terms of remittances, linkages, models and talent and vote pools. Finally, these countries may experience an outflow of temporary agricultural workers and heavy inflows of tourists.

Of course, all these patterns of population flow have arrested the attention of government, planners and scholars of the Caribbean. The two notes by George Roberts provide background to population movements in the Caribbean -- history, directions, typology. Further, they provide some views of the insufficiency of data, limitations of data collection and control capacities of the islands, inadequacies of data analysis and reporting on both migration as well as population size, growths or loss.

More importantly, Roberts makes the point, "A knowledge of the extent and character of external migration is desirable not only from the standpoint of losses to the society; it is equally relevant to have corresponding information on immigrants." Impressed that there were discrepancies between population counts of the Eastern Caribbean which showed small losses in a period of known heavy emigration, Roberts, an established expert on national increase rates and internal migration of the area, recommends examination of inadequacies on several levels, starting with laws and procedures to insure full coverage of external migration and proceeding with possible linkages at point or means of transit, codification and tabulation procedures, etc. Not unaware of the limitations or variations in technological capacity of the Caribbean states, Roberts has also discussed the reliability of specific statistical estimation and projection procedures used in certain Caribbean centers.

In the final note, Simon Jones-Hendrickson also acknowledges the shortage and inaccuracy of data and problems of missing observations which traditionally beset the aggregation of migration data. Additionally, he is concerned that much of the quantitative work in migration tends to be descriptive, providing only crude first level approximations but generally unable to show complex relationship with various other variables. As a scholar he believes such methods to be limited in their utility for arriving at policy decisions. Jones-Hendrickson then proceeds to discuss both time series and cross-sectional analyses, as well as regression analysis against the question of the migration of nurses from the Caribbean to Britain. The latter is not a created public issue per se, but a real phenomenon, and therefore the effort of the scholar is not to be received as an unsophisticated use of quantitative methods for polemical and political persuasion. Nevertheless, Jones-Hendrickson urges technicians to consider the models utilized in his presentation and develop more approaches in migration theory. He believes that in the long run decision making will benefit from such quantitative analysis.

IV

In the legitimate academic enterprise the judgment of findings and formal propositions by qualified peers is a basic tenet, which is related to claims or commitment of the enterprise to the pursuit and custody of valid, legitimate knowledge (or "truth"). In scientific or empirical circles, the further requirement is made for explicit statements of sources, data and methods which enhance the possibility of utilizing equally sophisticated methods of replication, control testing, and evaluation in assessing the validity of findings, and the adequacy of theories and methods. While there are no foolproof safeguards, and perhaps if there were they could not be implemented without moral or legal difficulties, the possibility is greater that contrived or accidental conclusions could not take hold without dispute, because of the ethic, vigilance, methodology and self-interest of the legitimate academic enterprise in protecting its attainments and status. Of course in the social sciences there are heightened problems in this regard because of the subjective complexities that revolve around the human subject and condition. Nevertheless whether mythical or real, the declared commitment to the pursuit of objective truth in the legitimate social scientific institution imposes upon its members a sense of respect (and vulnerability) for the judgment of their peers, so too is the importance given to dialogue and criticism and the sacredness to the notion of an empirical proof. Therefore, it is important for the public and policy-makers to appreciate the distinction between the caliber and claim of a kind of proof which is the successful or profitable proselytizing of a position as an item of sale as practiced in entrepreneurial or political ethics, and the kind of proof which means survival of the correctness of a claim which has been subject to systematic scrutiny or adequate empirical testing. Also, it is important for social scientists to subject sociological claims made by their peers or imposters to vigorous tests of validation, and when necessary expose contrivance or confusion between persuasion and proof which often is achieved by the misuse of social scientific techniques, data and languages.

Therefore, the role of the discussant or commentator should be neither superfluous or ritualistic; it is one measure of peer-judgment, scrutiny, criticism, debate and re-direction or re-enforcement. It is as discussant of the papers that sociologist-demographer, Charles Keely, engages himself. In the process of his comments on the work of his colleagues, he succeeds in making some cogent points to the general understanding of United States immigration and its study. His question as to whether there is a data system for United States migration demonstrates a common difficulty shared by all three researchers in Part II. It may well be that the question should be asked on the international or global level as Heisel has suggested, for the absence of immigration data from one country means the incompleteness of immigration data for other countries to which these people have gone (or gone through). Obviously, the concern for a natural-historical or career view of the immigration process or of immigrant life needs to be shared and coordinated on some global level if the data produced will be of official quality and enable comparable understanding of that process. More penetrating is his observation that in order to restrict immigration to the United States, certain restrictions have been imposed on the rights of children born in the United States of illegal immigrants -- thus creating ambiguity toward citizenship. The fact is that the entire study of the New Immigration is intricately tied up with policy on one level, especially civil rights laws which can both facilitate and mitigate research.

Keely's most caustic remarks are directed to the presentation by Hunt whom he links to J. A. Reyes Associates, a consulting firm contracted by the INS to do a survey of illegal aliens. Keely's most telling preoccupations with the study are the (1) absence of any really independent legitimate or internally instituted mode of evaluating the work; (2) reliance that is being assumed about the INS estimates and data which are of questionable reliability; and (3) the blatant audacity of the contractees to present their work as scientific, simply because they so label it. In light of the policy objective of the assignment, Keely appeals to both the INS and the Carter administration as he has done to Congress as well, to involve some legitimate independent social science institution as a third party evaluator throughout the entire deliberation, executing and reporting of such studies. Additionally, I would suggest that a panel of evaluators should have broad representation of persons and experts from the national population and from the source countries being studied to assure the impact of an insider's perspective and add a comparative dimension to the work. This is the very minimum manner in which the legitimate social science community could have been engaged. Returning to the study under question, it will be interesting to see what gains are made by, or at least what differences result from having contracted out such massive and crucial work to a minority headed organization. As the data are collected, analyzed and the findings monitored and published, the social sciences will perhaps have their voices heard -- post factum, of course. And whether the study fails or succeeds, the minorities will be scapegoats again.

The conclusion provided by Stephen Couch falls more in the order of a commentary than a conventional summary; it is also less critical and more synthetic. Hence, following the scheme of Robert Merton, the classical proponent of middle range theory, Couch attempts to demonstrate by way of the contributed essays on research on immigration, the categories proposed by

Merton on how research bears upon theory, in this case a theory of immigration. Of course, there is no comprehensive grand theory of the "New American Immigration." Perhaps there can and should not be one insofar as the new immigration is yet too new, not yet properly studied, and is but part of a larger ongoing historical, political and economic process on an international if not global dimension. Even if there could be one, of course, it would suffer at present because of the methodological deficiencies and unethical political intrusions which plague the field of immigration studies. The most interesting part of the Couch essay is his effort to develop a cycle of life history of immigration study. Like the notion of career-data, the concept can be traced to early scholarly comments in the RIIES planning conference.[3] Once developed and equipped with empirical referents, the concept begins to raise questions about its own universality and, therefore, questions about its validity and applicability. Presumably, Couch is not positing here a grand theory but really a set of middle range theoretical statements the use of which is intended to be heuristic rather than hypothetical, and his observations are obviously not limited to immigration study. Couch attempts to establish a cyclical relationship between immigration as a social phenomenon and a political issue or social problem -- the very distinction and dialogue which runs throughout this and several other essays in the collection in varying degrees of explicitness. His particular contribution to this dialogue is the notion of a four-stage cyclical pattern in the saliency of immigration which is then related to the availability of data and support for scientific study of immigration. His first stage, which finds immigration not being recognized as a political issue and social scientists pleading unsuccessfully for data, media attention, and research support, is indeed reminiscent of this writer's personal experiences on several occasions since the later 1960s and the frustrations of the Institute until even the very recent past.

Couch concludes that there is a direct but ironic relationship between the increased politicalization of immigration as an issue and the availability of improved data and support for its scientific study. The major beneficiaries of such heightened politization are likely to be the special interest groups, bureaucracies and private consulting firms which are, have and likely will continue to misuse or distort data "in the name of science." At the same time science undoubtedly will reap some spinoffs resulting from the saliency of the "problem" of immigration but, of course, will suffer abuse, perhaps discredidation as a result of the pretentious activities practiced and association or image forced upon it by the aforementioned groups.

The solution posed by Couch is adaptive, pragmatic and somewhat optimistic. It calls for legitimate social scientists to (1) proceed with the works that are possible with available data but insist that in so doing they state the limitations contained therein; and (2) enter into the political structures which collect and hold data in hopes of being able to improve data for future analysis. Underlying his cycle, of course, is the assumption of the prevalence and permanence of the conditions which cause (or at least explain) the cycle in the first place; that is, the necessary dependence of massive survey research on government or on major private sources for data and funds. To the degree that this is true or testable and not limited to immigration studies, it makes it seem that we social scientists will have been remiss once more if we do not study the society, these specific structures, and the real or felt dependency on them which affect the scientific study of immigration itself.

In ending, I insist therefore, that legitimate social scientists must pursue as one of their crucial contributions to this field a critical as well as a reflective sociology -- the first to restrict the misuse of science by persuaders; the second to assess and correct our own failings in the studying of immigration as an on-going social reality. Additionally, we must strive to create space and structural changes that will allow greater freedom of direction and access to data which we scientists need to do legitimate research on social phenomena of public importance. And we must support those persons within the bureaucracy who are working to help produce data and research of the highest quality, notwithstanding pressures which often inhibit their work. Hopefully in this volume of essays, RIIES has initiated a concentrated beginning in that direction.

We find, in addition, some reasons to be elated at the prospect that government, foundations and private professional sectors are finally adopting some of the positions we have persistently proposed with regard to the study and perception of immigration. Observable actions in this direction include: new national and international research programs directed to the scholarly community; new governmental hearings on the national level toward a fuller and broader understanding of immigration and its multiple levels of policy implications; conscious depression of the usually gross exaggerations of the numbers and negativisms about illegal immigration; and some indications of a broadening of the dialogue about the magnitude and meaning of the presence of new immigrants in the national press.

Still bothersome, however, are persistently punitive, anti-immigration police actions, especially in the Nation's Capital, and the growing cooptation of selective native minority scholars in carrying out late, desperate but myopic assaults against immigrant minorities. In the latter they are risking the reemergence and repetition of senseless internecine conflict among succeeding minority elements. Really mutually exploited complements, the hostilities of minorities toward each other are but unfortunate by-products of internal and international inequality and in turn are further exploited by anti-immigrant (often anti-minority) advocates and exploiters for their own ends. This belatedly taken position is naive, ill-founded and certainly out-of-tune with the growing interest displayed in more progressive circles about immigration, especially as it is orchestrated by forces lodged within or linked with this country.

FOOTNOTES

[1] See the transcript of this planning session in Roy S. Bryce-Laporte (ed.), *Supplement to Sourcebook on the New Immigration*. Washington, D.C.: Smithsonian Institution (Research Institute on Immigration and Ethnic Studies), forthcoming 1979.

[2] Ellen Percy Kraly, "Systems of International Migration Statistics: The United States as a National Case Study" (Ph.D. dissertation, Department of Sociology and Anthropology, Fordham University, 1979).

[3] Bryce-Laporte, *op. cit.*

PART I

DATA COLLECTION AND GENERAL AVAILABILITY

SOURCES OF DATA FOR THE STUDY OF INTERNATIONAL MIGRATION

Donald Heisel

In principle, the kinds of data needed by a scholar or a policy maker to deal with international migration in an informed way are not at all different from those used for the study of internal migration. At the most basic level of analysis, it is necessary to know the number of persons moving in a given direction between two localities during a specified period of time. In addition, it is necessary to know the essential demographic, social and economic characteristics of the migrants. Then, in order to try to understand how the flow of migrants is related to other demographic, social and economic conditions and processes, it is necessary to know the essential characteristics of the populations from which the migrants came and to which they went. The specification of which variables are essential comes from some combination of previous experience and theory.

Thus, the issue in principle of quantitative data required for research on international migration is not very complicated. All that is needed is a measure of the flow of migrants and of the stocks of population between which the moves occur. In practice, though, the data problem is not at all simple or straightforward.

Two special conditions underlying international migration contribute much of the practical complexity.

They are, first, its unique legal character and, second, its wide variability.

The unique character of international migration is that, in addition to being a demographic and a geographic event, a fundamental legal consideration is involved. In our contemporary world the almost universally accepted principle is that every human being (and every bit of land surface) must be identified with some sovereign nation. Further, the nation reserves the right to define and to grant citizenship, as well as to restrict or limit entry and duration of stay for all non-citizens. The larger trend throughout the twentieth century has been for national governments to increasingly exercise their right to control international migration flows. (The only significant exceptions to the trend have been some recent steps toward the development of regional blocs within which somewhat more free movement of labor is permitted.) Therefore, the migration flows themselves as well as the data recording the flows are inevitably much influenced by the way national migration policies are implemented. The data problem itself is further complicated by the fact that the goals and perceptions of the migrant and of the two countries concerned -- of immigration and of emigration -- may not coincide. Hence, the way a move is described and recorded may differ considerably between the three points of view.

There is a wide range of kinds of international movements commonly identified and discussed in our contemporary world. Migration resulting in permanent resettlement and possibly a change of citizenship, typified by the large-scale movement of Europeans to the Americas and Oceania during the nineteenth and first part of the twentieth centuries, continues to be of importance for some countries. In recent years, a somewhat different kind of movement has sharply increased in importance; the flow of guest workers, notably into Northern and Western Europe and the Persian Gulf region. Most commonly this flow consists of workers moving from poorer to richer countries, ostensibly for a temporary stay, working in occupations that call for comparatively low levels of education and labor force experience. Then, at nearly the opposite end of the occupational scale, another flow of importance is the so-called "brain-drain." Again a movement primarily from poorer to richer countries, in this case the migrants are highly educated and normally are expected to remain in the host country permanently or for an extended period of time. Still another of the important contemporary flows is most difficult to analyse because it is undocumented. In many countries -- by no means only in North America -- some migrants cross international boundaries without governmental authorization or remain as aliens in countries after permission to do so has expired. Other international flows that may be very important in specific countries include movements of refugees, nomads, seasonal and border workers. Finally, there is a great deal of movement across international frontiers for tourism, business travel, study abroad, pilgrimage; there are diplomatic and consular personnel, armed forces abroad, foreign crewmen, and so forth.

Over the full range of these various types of international movement the one element in common is the crossing of an international boundary. Demographic, social and economic causes and consequences differ substantially. Measurement procedures that may be quite satisfactory for one type may be far less so for another. Moreover, although reference to flows of the various types is readily understandable in common usage, it must again be recognized that such categories reflect the interaction of governmental policies with migrants' behavior rather than being simply and purely some form of classification for analytic purposes. A migrant may depart or enter a country in a particular category more because it is made available by government than because it is necessarily the best possible description of his or her behavior.

For example, individuals may enter a country classified as a "tourist" or a "student" although they intend to remain for an extended period and seek employment. Others may enter a country classified as a long-term immigrant although they intend to emigrate to some third country as soon as possible. Women sometimes enter a country classified as a "dependent" of their husband or as a "housewife" although they intend to participate full time in the labor force.[1]

In general, the problems of measurement of international migration are serious -- it may well be among the least satisfactorily measured of all the demographic variables. However, these difficulties should no more be overstressed than ignored. A significant portion of international migration in the modern world is accurately classified and recorded by the existing data-gathering systems. What is essential is that any data user be aware of likely sources of error in order to anticipate the distortions they may introduce.

SOURCES OF DATA

There are four main sources of data found in regular use in the modern world. They are: (1) records of boundary crossings (including, of course, arrivals and departures through airports) as they occur; (2) censuses (sometimes used in conjunction with data from registration of births and deaths); (3) national population registries; (4) repeated sample surveys.[2]

Few countries use all four of these systems. Each government selects and implements those that seem best suited to its experience, needs and capabilities. There is, of course, a wide range in procedures used and in levels of accuracy. To help raise standards and improve comparability where useful and suitable, the United Nations provides a regular forum for government statisticians and demographers to consider and recommend appropriate data gathering and analytic procedures.

(Indeed, a good deal of the discussion of data sources to follow is based on the records of such meetings, and on information about procedures gathered by the United Nations as background information for the meetings.) In the actual event, however, the decisions about which procedures to use and how to use them are entirely in the hands of the individual governments.

Border Statistics

The most important and widely used source of data on international migration is the collection of information at the border for entries and departures. Normally, data are gathered as part of the process through which the government determines whether, and under what conditions, an individual is authorized to enter or depart. Because the system operates as the events of migration take place, it is well designed to provide a continuous monitoring of migrant flows with minimal problems of recall. Since gathering and recording information is part of the border control process, the data themselves are available at comparatively low cost. Basic information such as the age and sex of persons who cross the border can be obtained readily and with reasonable accuracy; there is little difficulty with non-response.

The United Nations Statistical Office recently completed a study of "National Practices in the Definition, Collection and Compilation of Statistics of International Migration."[3] Of 138 countries or dependencies providing information on souces of data, ninety-three reported use of information coming from frontier controls, as of about 1975. The following table shows the pattern of use of border control data by the ninety-three countries by continent and direction of moves reported:

	Africa	North America	South America	Asia	Europe	Oceania	USSR	Total
Immigration and emigration	24	18	6	13	3	9	-	73
Immigration only	3	4	-	2	3	3	-	15
Emigration only	1	-	-	1	2	1	-	5
Border control, data not used	6	5	5	2	22	4	1	45
	34	27	11	18	30	17	1	138

Clearly, border control data are particularly important in Africa, North America, Asia, and Oceania -- especially in countries where other sources of information are less fully developed -- and are rather less used in South America and especially in Europe. Most countries that use the source gather information about both entries and departures. Those that limit the information obtained to movement in only one direction tend to make more extensive use of border controls to measure immigration. Countries that do not use border control data may rely on other sources of data.

Despite its very widespread use, the system suffers a number of defects. The most important arises from its intimate link to governmental exercise of authority over conditions of entry or departure from a country. The individual providing information may have a strong and clear inducement to respond in a manner which is expected to bring about a more favorable reaction from government; the data are gathered in a far from neutral situation. Legal concerns may well be sufficiently strong that the migrant may see it as in his or her interest to describe the same event differently to different authorities -- for example, to the country of origin and to the country of destination. Second, the kinds of information gathered tend in practice to be closely tied to the concerns of migration policies. Instead of basic demographic, social or economic characteristics, emphasis falls heavily on the migrants' stated intentions at the time of border crossing, for example, to move permanently or not, to change citizenship or not, to seek paid employment or not. A migrant who enters a country under some short-term category and subsequently manages to stay for a longer period may not be satisfactorily recorded by a border control system alone. In general, the system is not designed primarily to gather data for purposes of statistical analysis.

Moreover, although an individual migrant may be obliged to state some kinds of fixed intentions at the moment of border-crossing, e.g., to remain permanently or not, he or she may in fact not be at all so committed to a single course of action. Widely observed high levels of return among long term migrants suggest that for many of them the move is on a trial basis.

A third problem is that in countries where borders are difficult to patrol, significant amounts of migration may go unrecorded. Such flows have been reported especially in North America, Africa and Latin America. Of course, where migration policies are restrictive, many migrants have a strong inducement to avoid contact with immigration officials, if possible.

Finally, a rather different sort of problem emerges from the fact that border control systems must be designed to collect the same basic information from all individuals crossing the frontier. Most social scientific research focuses on longer-term moves since these are more likely to be associated with structural changes in the sending and receiving societies and to have more far-reaching consequences for the movers. At many frontiers, however, the vast preponderance of moves are short term and often repeated, such as by tourists, business travellers, border workers, airline and shipping personnel, and so forth. Many are citizens of the country of entry who are returning from a comparatively brief voyage. Nevertheless, all are required to pass through some formalities of entry. For example, for the year ended 30 June 1975, the United States reported admitting 386,194 persons as "immigrants" but during the period there were 258,427,327 entries into the United States.[4] Administrators of any such system are obviously constrained to try to keep it as simple as possible. Intensive data gathering must be limited.

Although there are obvious difficulties to be confronted whenever data on migrants are drawn from border control systems, it remains one of the most valuable sources of information. It is the most widely available means to obtain estimates and basic characteristics of current flows of migrants

Census

The classic and nearly universal tool for measurement of population is the periodic census. An enumeration of selected characteristics of every individual in the population, the census is designed solely to be a source of information; it is free of direct administrative or policy implementation functions. It is the periodic inventory of the stock of population of a country. All but a few nations have had at least one modern census and it is almost everywhere accepted that ideally an enumeration should take place at least every ten years.

A typical modern census obtains information on a wide range of demographic, social and economic variables of concern to a society. Very commonly countries adopt a procedure whereby only a limited number of questions are asked of all persons and detailed information is gathered from a sample.

In the inquiry on national practices, thirty-one countries reported that they used the census as a source of information on international migration. Of the thirty-one, only six reported that both emigration and

and immigration data came from the census, one (French Polynesia) indicated that the census was used as a source for emigration data only, and the remaining twenty-four reported use of the census for information on immigration only. It should be added that although some governments may not report use of the census as a source of information about migration, that does not necessarily imply that these data do not exist, but merely that they are not directly used by government for its particular needs.

The specific questions included in the enumeration to gather information about international migration vary a bit from country to country but by far the most common items are questions on place of birth and on place of residence at a specific date in the past. A few also ask about year or period of migration.

Preparations are now actively underway in most countries for a national census to be taken in 1980 or sometime soon thereafter. In January 1978 a meeting was convened by the United Nations Statistical Office in New York to consider recommendations for the 1980 census round. It was attended by census experts from thirteen countries and representatives of regional commissions and specialized agencies, as well as appropriate members of the United Nations Secretariat. Discussions covered all aspects of census procedures. Final draft recommendations emanating from work of the expert groups will be considered by the Statistical Commission at its forthcoming session.[5]

Of direct relevance to international migration, particular importance had been attached by most regions to questions on the two basic topics, place of birth and place of residence at a specific date in the past. Other questions given special importance by some regions were place of residence, duration of residence and year or period of immigration into the country.

A census typically gathers an amount of information so enormous that a selection must be made within the set of all possible tabulations and cross tabulations. The expert group recommended fifty-six basic tabulations, identifying seventeen for early release because of the usually urgent need for those data. Of the fifty-six, four are directly related to the study of international migration. They are:

Tabulation No. 4. Native and foreign-born population by age and sex.

6. Foreign-born population by country, by birth, age and sex.

*8. Population . . . years of age and over by place of usual residence, place of residence at a specified date in the past, age and sex.

*9. Population by place of usual residence, duration of residence, place of previous residence and sex.[6]

(Those distinguished with an asterisk (*) were identified for early release.)

It may be observed that the expert groups explicitly suggested that most countries would want to publish more tabulations than the recommended fifty-six. However, it should also be noted that no cross tabulations of items directly related to international migration with other social or economic variables such as children ever born or economic activity were recommended.

Although the census is a potentially rich source of information dealing with international migration, it has some significant limitations. An obvious problem is that the census is done only after extended intervals of time. By the time a country reaches the end of a normal intercensal period, the estimates of nearly any of the variables, and especially one that can be as volatile as international migration, can be dangerously out of date. The delay problem is compounded in some countries where it may take years from the time of field enumeration to production of tables. The census is not designed to monitor any continuous process and, therefore, may have to be complemented with some kind of flow data such as those coming from a border control system.

Other general problems of censuses, which, of course, impede their use for the study of international migration as for any other topic, include omissions or overcounts. These can be particularly troublesome sources of error for international migrants. Some emigrants may continue to be reported as members of households long after they have left the country while recent immigrants may have a higher risk of being missed. (The latter especially where residential arrangements are not highly organized with equipment such as recognized and named roads and numbered dwellings such as found in some less developed countries.) Undocumented immigrants may well seek to avoid enumeration on the general principle that the less contact with government the better.

A.question on place of birth will satisfactorily identify many immigrants. However, it will, of course, miss all those who entered the country but left or died before the date of the census. Thus, it provides no reliable information on rates of flow over time. It also fails to distinguish between those who entered many years earlier and others of the same age who entered much more recently, although this limitation can be significantly mitigated if at least two successive censuses in which place of birth have been asked are available. A particular problem with this question can occur, especially for migrants who entered many years before the census, when national boundaries in the region of thier birth have changed; individuals responding to the census question may not always be in a position to give a clear and unambiguous answer about the country of their birth. Finally, the question by itself may also overestimate numbers of immigrants if the working definition of an immigrant includes -- as it usually does -- some element of intended length of stay. The problem is that the question of place of birth alone does not distinguish between a recently arrived tourist or short-term visitor and a similarly recently arrived individual who intends to remain permanently.

Comparable difficulties confront the analysis of reports of place of residence at a fixed date in the past (usually either one or five years before the census, occasionally at the time of some easily-remembered recent historical event). However, the use of a single fixed reference point in the past can enhance the specificity of the responses. Some respondents may have difficulty in accurately reporting where they were residing at a precise date but there is no especially obvious reason why the errors should be worse than for any of the other questions referring to migration.

Another serious limitation of the census is that it does not and probably cannot afford any particularly effective way to directly measure emigration. It should not be surprising that questions about persons who are absent are inevitably subject to greater error than are questions about those who are present. Most censuses are organized around the enumeration of members of households; there are both conceptual and practical difficulties in asking someone in a household to report whether or not there is any person who was a member of some specified time in the past but is no longer. The basis on which respondents in a household decide whether or not an individual who has gone to another country is still a member of the household may differ substantially from one household to the next. Nor is it a simple task to establish satisfactory formal criteria which can be easily used in a census form. Finally, if all members of a household emigrate, there is simply no one left to report their departure.

Any two or more successive censuses can be made to produce estimates of net migration -- that is, the balance of immigration and emigration -- for a country. The approach is based on the arithmetic necessity that the difference between the number of people in a country at the time of the first and at the succeeding census which cannot be explained by fertility and mortality must be the result of the joint effects of immigration and migration during the interval.

Even in the complete absence of any direct questions on international migration, place of birth, or place of previous residence, analysis of two successive censuses can be used, in conjunction with estimates of mortality and fertility, to estimate net international migration. The method must be used with caution, however, for small differences in the completeness of enumeration in the two censuses or small errors in the estimation of fertility and mortality can produce large errors in the estimated volume of net migration. Moreover, it is very difficult to make accurate inferences about social or economic characteristics of net migrants using such purely indirect measurement techniques.

If two successive censuses each have the same direct questions on international migration, such as place of birth, the prospects for more accurately estimating net international flows are considerably enhanced.

The analytic approach is the same as in the previous case but now it is possible to focus specifically on changes in the numbers in particular birthplace categories and to produce estimates which are quite robust to problems of differential underenumeration or of errors in estimates of fertility and mortality.[7] Nevertheless, it must be remembered that these indirect methods cannot provide estimates of more than net migration over the intercensal time period. Of course, the same level of net migration may mask very large differences in immigration and emigration.

Population Register

A population register can be quite an effective source for migration data. Essentially, the system consists of a continuous record of all persons in a population. An individual enters by birth or immigration. His or her record is continually kept up-to-date about basic events such as changes in place of residence, marital status, children born, occupation, and so forth. The individual leaves the system through death or long-term emigration.[8] Thus, the information contained in a population register can provide both current flow and stock data on migration. Indeed, as population registers have come to make more extensive use of computers for data storage and processing, they have gained significantly in flexibility and the range of detail they are capable of handling.

Existing population registers are designed to serve a variety of governmental administrative needs. This means that no one area of behavior can be dealt with in any great depth but also that accuracy of recording can be emphasized, independent of any particular kind of policy implementation.

It should be noted that many countries, which do not have a classical population register as such, use specialized registers for some particular administrative purpose such as maintenance of a social insurance system, an employment register, and so forth. Computers make it technically feasible to link the records of various contacts of individuals with governmental agencies in such a fashion that a kind of quasi population register is the practical result. These can provide useful estimates of some aspects of international migration even though not designed to do so. Obviously, however, they must be approached very much in an ad hoc (or perhaps better, ad patrium) manner and will not be discussed further here.

In the survey of national practices,[9] eighteen countries reported use of population registers to obtain international migration statistics. Of these, sixteen were in Europe (including the Soviet Union) and the other two (Greenland and the Netherland Antilles) were in North America. All but one were reported as sources of both emigration and immigration data. (The single exception was Gibralter, where the system is reported to produce data on civilian immigration only.)

Population registers can be a very effective tool for the production of accurate information about international migration. However, they have some limitations. Among these are two quite general problems: (1) the systems are very expensive, and (2) unless they are very carefully tended they may cumulate errors over time. The former problem severely limits their potential applicability, especially in less developed countries. The latter may be especially serious for the measurement of international migration. A detailed study of the use of the population register of the German Federal Republic for the study of international migration shows that in general in-migration and immigration are more accuratedly recorded then out-migration and emigration.[10] Some emigrants may not be recorded at all as they depart; for those whose departure is noted, there remains the necessity to depend on their stated intentions of destination and expected length of stay. In the experience of the German Federal Republic, for example, it is reported that some years ago some migrant workers returning to their country of origin merely for their annual leave would state that their departure was intended to be permanent. In this way they could be issued and take with them their accrued retirement benefits. As a result, reported rates of emigration and subsequent return immigration were inflated. It is quite possible that with the employment difficulties now faced by migrant workers in Northern and Western Europe the tendency would be in the opposite direction -- a homeward-bound migrant might tend to want to keep any possible links to the host country as a kind of insurance to facilitate a future job search, if it should become necessary.

In addition, as a number of the population registers in existence now operate, they fall rather short of full exploitation of their potential. Again using the example of the German Federal Republic, the event of migration is recorded chiefly through the act of registration of an individual in his or her new place of residence. Reports of all such moves are aggregated to produce periodic estimates of the total flow of migration. Two points may be noted. First, as mentioned, the procedure records immigration much more effectively than it does emigration. Second, the event recorded is a move and not a person. That is, although the information in principle exists, the system is not designed to provide migration histories of individuals, for example, of moves by immigrants subsequent to entry into a country. In general, the cost and necessarily multi-purpose character of population registers limits their specific usefulness as a source for international migration data.

It is worth emphasizing that even in countries where no full-fledged population register has been established, special purpose registers may exist which can be made to produce data that can be useful for the study of international migration. Examples are social security or employment registers. Such systems are likely to be found only in more developed countries. Because they are designed for some special purpose other than to provide information about international migration and they normally are not universal in their coverage of the population, they must be used with great care. However, they can be a helpful supplementary source of information. Moreover, it is quite likely that such registers will become both more common and more extensive in the future -- and hence more useful for the study of international migration.

Sample Survey

The final regular source of information that may be used to measure and analyze international migration is a sample survey. In many countries, repeated surveys are carried out on a sample of households or of individuals to estimate conditions of concern to the society. Labor force and household expenditure surveys are typical examples. They are often repeated at short intervals -- quarterly or semi-annually or, at the longest, annually. By virtue of the well-known advantages of sampling methods, essentially a gain in quality at the expense of quantity, they can be used to inquire in some depth into special issues of particular interest.

These data sources have not yet been used very widely for information about international migration. They are generally the most recent additions to national data gathering systems so there is less experience with their applicability to the subject. More importantly, though, they make use of samples and hence are not easily applied to the measurement of comparatively uncommon events. There are very few countries where the total number of international migrants would amount to as much as 10 percent of the population. (For example, among seventy-two countries that reported foreign born on a recent census, the percentage of foreign born was ten or more in fourteen and less than ten in the remaining fifty-eight.) Therefore, unless a very efficient sampling design is available or a much larger than usual sample is drawn, migrants will not appear in sufficient numbers for intensive or reliable analysis.

It should be noted that sample surveys suffer from essentially the same weaknesses as censuses in reference to emigration. Nevertheless, sample surveys could almost certainly be used more extensively in conjunction with other data sources, especially as more experience is gained with their application. They can prove to be helpful for the study of particular components of international migration flows such as of guest workers or of members of specific occupational groups or professions. Sample surveys can also be used effectively in the investigation of the importance of international migration for specific small areas of particular interest. In addition, surveys have the considerable advantage that, by sacrificing quantity for quality, they permit a larger number of questions to be put to respondents. Thus information of considerably greater depth and detail can be obtained. Finally, surveys are usually not directly tied to governmental policy implementation.

OVERVIEW

Each of the four chief sources of information about international migration has a mixed set of advantages and weaknesses. Use of all available information for a given country can normally be made to produce some kind of estimate of at least the broad outlines of its experience with international migration. For some, especially more developed countries, the information is often both satisfactorily accurate and extensive. However, there are a number of problems which persist no matter which sources of data are used.

Among the most important of the unresolved issues, the following might be highlighted:

First, the measurement and analysis of emigration remains one of the weakest points in all systems of data gathering. The reasons are not difficult to see -- it is easier to enumerate and describe people who are present than it is to deal with those who are absent. However, understanding the reason does not eliminate the problem and possible negative consequences. In particular, the difficulty of dealing with emigration means that the focus of analysis is likely to fall disproportionately on areas of net immigration. This could have the effect of distorting the whole understanding of international migration.

Since the net flow of international migrants is from poorer to richer areas, this data source problem may give undue weight to characteristics, causes and consequences as they manifest themselves in the richer net immigration areas, simply because they are more readily measured and analyzed.

Second, there remains the problem of obtaining objective quantitative information about events which are the subject of very direct governmental policy. The problem is most serious for data produced by the frontier control system, but it has an effect on information gathered in other systems as well. So long as national governments remain the only agency capable of managing a country-wide system of data production and also the sole institution charged with international migration policy formation and implementation, the problem will inevitably occur. However, it seems reasonable to think that some organizational arrangements for data gathering can more effectively mitigate the problem than others.

Third, the problem of conceptualizing immigration in the most useful way is not entirely resolved. Broadly speaking, it remains chiefly a matter of distinguishing tourists from immigrants. In part, the problem is probably insoluble. The distinction depends on intentions and expectations of individuals which can change rapidly. However, there may yet be steps that can be taken to achieve greater simplicity and at the same time make the most useful distinctions for purposes of analysis. The

United Nations has worked with member governments to produce a set of recommendations designed to respond to this issue.[11] A very important component of the set of recommendations is to minimize and simplify use of legal or socio-economic characteristics in distinguishing various categories of persons crossing international frontiers and to depend as much as possible simply on expected length of stay. Specifically, it was suggested that the major distinction be between persons who move for up to one year, who should be classified as short-term migrants, and those who move for more than one year, the long-term migrants. In general, there is need for continual attention to the conceptualization of international movement, especially as changes may be needed in order to deal with basic alterations in the kinds of flows occurring in the world.

Finally, there is the continuing and widespread problem of dealing with undocumented migrants. By definition, the problem of obtaining data on undocumented events is the most nearly intractable of all. Nevertheless, the issue of course cannot be put aside simply because of problems with the data. Recognition that established data-gathering procedures have failed to give satisfactory results should suggest that other procedures are needed. It may well be that this is the most serious instance where the mixing of policy implementation and data gathering impede the latter.

As a final topic, it may be useful to speculate briefly on what appear to be some potentially useful steps toward improved data for the measurement and analysis of international migration. Although there do not appear to be any breakthroughs on the horizon that will simply eliminate any of the data problems, there are steps that could well lead to incremental improvements.

Two comments made above have already referred to such steps: first, simplification and standardization of working concepts of migrants and, second, increased use of data gathering procedures which are more independent of policy implementation. Periodic sample surveys may well prove to be particularly fruitful.

Another direction of effort that could help obtain improved information is toward increased co-operation between countries. This could occur in at least two ways. In the first place, there is much that could be gained through increased comparability of concepts among countries. If two countries are linked by an interchange of migrants, but they use quite different definitions of who is a migrant, there is little possibility of using the data of one country as a useful check on the data of the other. On the other hand, if the procedures are reasonably similar, then the measurement of international migration can be dealt with almost as in the case of measurement and analysis of internal migration. Of course, every nation will respond first to its own unique definition of its needs for information. However, to the extent that international migration becomes a more important component of demographic and socio-economic change, the utility of comparable procedures is increased.

The other step in the direction of increased co-operation would be to institutionalize contacts between governments that are linked by an interchange of migrants simply to compare data and to try to mutually arrive at a better estimate of the size and character of the migration flows and at a better understanding of their causes and consequences. A regional precedent for such an arrangement exists for Northern and Western Europe and the Mediterranean countries. In the early 1970s, the Organization for Economic Co-operation and Development (OECD) sponsored the development of the *Système d'Observation Permanente des Migrations* (SOPEMI). Each year representatives of some fifteen countries both of net immigration and of net emigration meet and prepare a summary report on flows of migrant workers and their families in the region. The reports document not only the numerical estimates of flows of workers but also deal with employment conditions, policies, social conditions and economic consequences of the flows. These co-operatively produced reports provide the respective governments with considerably more accurate and up-to-date information than any one of them could obtain working independently. There are reports that similar institutionalized arrangements are being developed among the Arabic-speaking countries of North Africa and the

Middle East. It seems reasonable to suggest that such arrangements might prove useful in other regions as well. International migration is above all else a form of interaction between nations; the data-gathering procedures might very usefully draw upon that fact.

FOOTNOTES

[1] See, for example, Monica Boyd, "Occupations of Female Immigrants and North American Immigration Statistics," *International Migration Review*, vol. X, no. 1, Spring 1976, pp. 73-80 and Charles Keely, "Accuracy of Data on U.S. Immigration," a paper presented to the Annual Meeting of the Population Association of America, Seattle, 1975.

[2] Two other sources of information have at times proven to be useful, but are too special to justify extended discussion here. Passenger manifests for ship or air travelers have, on occasion, been used to provide estimates of the size of specific international flows. Ship manifests are a valuable source of information about international migration in the nineteenth century, especially for the trans-Atlantic streams, for example. Passport and visa applications have also been used, but usually only as a last resort. Both are vulnerable to a variety of different kinds of quite serious errors.

[3] ST/ESA/STAT/80/Rev. 1, 16 May 1977.

[4] United States Department of Justice, Immigration and Naturalization Service, 1975 Annual Report. Washington, D.C., Tables 1 and 3.

[5] "Draft principles and recommendations for population and housing censuses." Part Two. (E/CN.3/515/Add.2)

[6] Tabulation 9 is recommended for early release only when information on place of residence at a specified date in the past is not collected and, therefore, tabulation 8 cannot be prepared.

[7] These procedures fall more in the area of analytic procedures than of sources of data, the subject of this paper. Details are presented in a standard demographic methods text such as Henry Shryock and Jacob Siegel, *The Methods and Materials of Demography*, Bureau of the Census, U.S. Department of Commerce, Washington, D.C., 1973, chapters 20 and 21.

[8] A useful discussion of population registers is available in *Methodology and Evaluation of Population Registers and Similar Systems* (United Nations Publications, Sales No. I.69.XVII.15).

[9] *Op. cit.*

[10] Committee for International Co-ordination of National Research in Demography, "Systems of Registration of International Migrations Permanent Registration (the Case of the Federal Republic of Germany)," *Proceedings of a Seminar on Demographic Research in Relation to*

International Migration held in Buenos Aires, Argentina, 5-11 March 1974 (Paris, 1974), pp. 26-38.

[11] "Draft Recommendations on Statistics of International Migration." Report of the Secretary-General to the nineteenth session of the Statistical Commission, New Delhi, 8-19 November 1976 (E/CN.3/483).

SOURCES OF DATA FOR THE STUDY OF U.S. IMMIGRATION

Ellen Percy Kraly

This paper is a first step toward a systematic evaluation of the relevance of currently available U.S. immigration statistics for national policy analysis and social demographic research.[1] Presented here is a review of national sources of immigration statistics. The statistical activities of selected federal agencies will be described in terms of their relevance for studies of immigration to the United States. These agencies include the U.S. Department of Justice, the Immigration and Naturalization Service, the U.S. Department of State (Bureau of Security and Consular Affairs), the U.S. Department of Labor (Labor Certification Program), the U.S. Department of Commerce (Bureau of the Census), and the U.S. Department of Health, Education and Welfare (Public Health Service). Statistical information has not been restricted to legal concepts but also includes demographic concepts of residential mobility and nativity. Extending the conceptual referrent of immigration to include general international mobility has the effect of increasing the store of available information. The limited sources of national data on emigration from the United States will not be described in this paper.[2] However, it should be recognized that information on patterns of emigration is necessary for analysis of the process of international migration and its consequences for national demography, society and economy.

The duties of the Immigration and Naturalization Service (INS) include the enforcement of the immigration laws of the United States. Accordingly, the Service is responsible for inspecting persons seeking admission to the United States and is the primary source of flow statistics on international migration to this country. Data are collected in varying ways for classes of international travellers recognized in U.S. immigration legislation. U.S. citizens arriving are counted through passenger statistics[3] and reports submitted by INS inspectors at international land borders. Data on aliens admitted for permanent residence (immigrants and conditional entrants) are derived from the Immigrant Visa (form FS-510,511). Aliens admitted for temporary lengths of stay for specific purposes (nonimmigrants) are documented on the basis of information collected on the Arrival-Departure Form (form I-94) and the Labor Certification Form (form HA7-148) for temporary workers. Data for parolees are also derived from the Arrival-Departure Form (Parole Edition). The entry of other groups of international migrants such as crew members and border crossers is documented on the basis of workload data for INS inspectors.

The activities of the Service are described in the *Annual Report of the Immigration and Naturalization Service*. Included in the *Annual Report* are tabulations on annual (fiscal year) passenger arrivals and departures, inspections and admissions of aliens, naturalizations, apprehensions and deportations, and other aspects of immigration law enforcement. Populations of arrivals are classified according to legal statuses. For example, tabulations for immigrants represent aliens who have been granted a visa for permanent resident status and are entering the United States for the first time under that visa, and aliens who are in the United States and adjust from some nonimmigrant visa category to permanent resident status. Other tabulations are published for specific immigrant visa categories such as occupational preference beneficiaries, and nonimmigrant visa categories such as temporary workers and visitors as well as for refugees and parolees.

The basic documentary source of information on immigrants is the visa. Relatively more social demographic information is available from the immigrant visa than from those sources of data pertaining to other classes of international arrivals to the United States. Correspondingly, in the *Annual Report* immigrants are classified according to sex, age, occupation, and marital status, as well as country of birth, country of last permanent residence and place of intended residence in the United States. However, rarely are more than two of these variables included in a cross-classification. It is very difficult to make a social demographic profile of the annual immigrant population based on the tabulations published in the Annual Report. Moreover, the immigrant class is not disaggregated to indicate aliens adjusting status in tabulations with other social demographic characteristics. Class of immigration is cross-classified with country of birth and country of last permanent residence, and for occupational beneficiaries, detailed occupation.

Basic social demographic information is less available for nonimmigrants admitted to the United States. The Arrival-Departure Record does not include sex, age or marital status for nonimmigrant aliens. Occupation is available only for those classes of nonimmigrants whose purpose of travel is temporary employment in the United States (temporary workers and trainees, intra-company transferees and exchange visitors). Tabulations for nonimmigrants included in the *Annual Report* are limited primarily to country of birth and country of last permanent residence.

Tabulations on refugees and parolees have been included in the *Annual Report* for the years in which the authorization is effective. Information on these special classes of arrivals is usually limited to class of admission and country or region of birth.

Passenger statistics have indicated only U.S. citizenship status, mode of travel (sea or air) and country of embarkation and country of debarkation for the total number of passengers arriving and departing from U.S. ports. These data are derived from Manifests (forms I-92 and I-418) submitted by international transportation carriers. Data on persons admitted over international land borders and crew members admitted are also published in the *Annual Report* and are cross-classified with U.S. citizenship status.

A final group of tabulations published in the *Annual Report* and relevant to this description of national sources of information on immigrants refers to aliens reporting under the Alien Address Report Program. Each January all aliens in the United States are required to submit an Alien Address Report (form I-53) at local offices of the INS. The report includes basic demographic information such as age, sex, marital status, occupation, and place of residence, as well as legal information such as visa category and alien registration number. The *Annual Report* includes only a few tabulations using alien address report data, however. Cross-classification is limited to state of residence and nationality.

For the most part, data which are published by the INS represent those data which are available to the non-governmental researcher. Public use research files have not been developed by the Statistics Branch. It is feasible for outside researchers to request special tabulations to meet specific research needs. However, one must keep in mind that the Statistics Branch is not service- or user-oriented and requests for special tabulations are not easily satisfied. Statistical worksheets on immigrants and nonimmigrants annually admitted are available at the Statistics Branch for years as far back as 1953. Essentially, these worksheets represent the tabulations presented in the *Annual Report*, although in greater detail. Alien Address Report data have been centralized at the Statistics Branch only since 1974. Prior to that year, district offices of the INS would send tabulated data to Washington, D.C. for aggregation in national tables. Since 1975 a private contractor has been responsible for microfilming the annual address reports and creating a data file. This information is sent to the Statistics Branch of the Service for statistical analysis.

There are problems concerning the statistical activities of the INS. Problems stem from the emphasis of law enforcement activities within the Service and the low priority given the Statistics Branch in terms of resources and personnel. Focusing on the statistical information published by the INS, however, two general problems can be recognized. First, tabulations are not generally consistent across legal categories. For example, it is not possible to compare among classes of immigrants or across classes of arrivals for social, demographic or geographic characteristics. As described above, tabular inconsistencies relate to the nature of the basic data and the varying methods of processing data on immigrants, nonimmigrants and persons responding under the Alien Address Report Program.

A second general problem concerns the simplicity of cross-classification. Including more variables in the tabulations would increase the descriptive value of the published materials without necessarily losing in statistical detail. For example, several tables are presented in the *Annual Report* on aliens currently in the United States adjusting to permanent resident status. Year of entry is included in one table, and class of original admission is included in a second, each by country of birth. Cross-classification of year of entry with class of admission would offer information on propensity of classes of nonimmigrants to adjust status. However, statistical analysis of characteristics of annual arrivals is not required by the INS as its administrative responsibilities are currently organized. That which is the bread and butter of the Statistics Branch is the processing of field operations and work load data for administrative purposes. Summary tabulations such as those presented in the *Annual Report* have been developed basically through the individual initiatives of statistical staff.[4]

Two additional sources of data deriving from the administration of the immigration law include the Visa Office within the Bureau of Security and Consular Affairs in the Department of State and the Labor Certification Program within the Department of Labor. The Visa Office receives monthly and semi-annual reports on visa issuance activities from U.S. consulates abroad. Workload Reports (forms FS-258 I,II) classify immigrant and nonimmigrant visas issued by country of chargeability or nationality and specific class of visa such as preference category or nonimmigrant class. Data on total number of visa refusals are classified by legal grounds of refusal. The data are tabulated and published annually in the *Report of the Visa Office.* The original reports are also available to nongovernmental researchers for subsequent analysis. These data represent a crude measure of demand for immigrant and nonimmigrant visas and do not reflect persons actually entering the United States. The Visa Office is the only federal source of information on visa applications denied. Unfortunately, only one tabulation is included in the *Report of the Visa Office* which summarizes the total number of immigrant and nonimmigrant visa applications refused, by grounds of refusal. Location of visa issuing post is not included in the tabulation.

The Department of Labor is responsible for granting labor certification for aliens applying for an immigrant visa in the occupational preferences (third and sixth preferences and most nonpreference applicants) and for advising the INS on aliens seeking admission as nonimmigrants for temporary employment. The Labor Certification Program was created to fulfill the requirements of the 1965 amendments to the Immigration and Nationality

Act. Between 1966 and 1969 the Labor Certification Program published an annual statistical report containing data on characteristics of workers both certified for employment in the United States and denied labor certification. This publication (formerly titled *Worker Certification Program*) is being prepared again this year (1978). Basic data on labor certification are derived from the Labor Certification Form (form HA 7-148) and include sex, age, country of birth, intended residence in the United States, occupation, salary or wage, duration of employment, and certification determination. In addition to published data, the Labor Certification Program has made available photocopies of detailed tabulations and has developed a public use research file containing all of the information available from the Labor Certification Form except identifying data such as name of alien and prospective employer. These data represent administrative processing of alien employment applications and, like those available from the Visa Office, do not represent aliens actually admitted to the United States.

The Bureau of the Census collects statistical information on international migrants to the United States in the decennial census and in the Current Population Survey. Unlike the data collected by federal agencies described to this point, census data do not represent by-products derived from the administration of immigration law. Accordingly, the process of international migration to the United States is measured through social demographic statistical concepts such as place of birth and residential mobility. Furthermore, census data represent a stock measurement of the population; that is, the characteristics of the population are recorded at one point in time. Persons who have died or who have emigrated prior to the time of the census inquiry are thus not included in the census count.

The administrator of the decennial census requires persons being assigned their usual place of residence. Aliens temporarily visiting or travelling in the United States are thus excluded from census enumeration:

> "In accordance with census practices dating back to 1790, each person enumerated in the 1970 census was counted as an inhabitant of his usual place of residence, which is generally construed to mean the place where he lives and sleeps most of the time. This place is not necessarily the same as his legal residence or domicile . . ."[5]

However, the alien population which is enumerated does not reflect the legal concept of permanent resident status, but includes classes of nonimmigrants, as recognized by immigration legislation, whose presence in the United States fulfills the residence criteria established in census operations.

International migration has been measured in the decennial census through the concepts of lifetime migration and residential mobility. A question on place of birth of U.S. residents has been included in the decennial census since 1850. In recent censuses, the foreign born population has included persons born outside the fifty states, Puerto Rico, and other U.S. possessions. U.S.

Citizenship Status is the only item included in the census pertaining to the legal status of the foreign born population. Year of immigration (the year in which the respondent came to the United States "to stay"[6]) was asked in censuses during the early part of this century and again in 1970. Potentially, information on year of immigration allows the identification of migrant cohorts and the relating of stock information to flow events. In the 1970 census, year of immigration was precoded in five-year cohorts for the years between 1945 and 1970, ten-year cohorts between 1915 and 1944 and for all pre-1915 immigrants together. The census data cannot be easily compared with annual INS data on alien admissions.

The second census concept relevant for the study of international migration is that of residential mobility. This concept is operationalized in the question concerning residence at a specific point in time before the inquiry (in the case of the 1960 and 1970 censuses, five years earlier). The population abroad at the earlier date is an indicator of international migration to the United States during a recent period of time. The concept has the advantage of including the total U.S. population as the population at risk and thus offers a more purely demographic measurement of recent international migration to the United States.

Data from the decennial census are available to the nongovernmental researcher in a variety of forms. Several public use samples have been developed from the

1970 Census of Population and Housing; one public use sample is currently available from the 1960 census.[7] Special tabulations can be requested for local populations and for social demographically defined population groups. Perhaps most importantly, census data are widely available in published tabulations and summary tapes.

In general, census data relating to international migration are widely tabulated with basic social, economic and demographic variables. Nativity is available for many geographic units although degree of cross-classification declines with the size of the unit. Recent censuses cross-classify nativity with variables particularly relevant for the study of immigration such as parentage, country of origin, mother tongue, citizenship status, and year of immigration. The most detailed of these tabulations are found in the subject reports concerning national origins and parentage. Other subject reports include nativity in at least one cross-classification for the specific topic.[8]

The tabular analysis of residential mobility has been expanded in the published reports of more recent censuses. Mobility status indicating the population abroad at the earlier point in time is tabulated for the total population for the entire range of geographic and urban classifications. Mobility status is also tabulated with basic social demographic variables including nativity and citizenship which provide insight into the nature of the migration process. Several subject reports have been devoted to the analysis of residential mobility data in recent censuses.

The Current Population Survey conducted by the Bureau of the Census is a source of annual data on residential mobility of the national population. Tabulations on residential mobility have been published in *Current Population Reports* since 1948 and are cross-classified with a broad range of social demographic variables. Public use samples are available for surveys since 1968. Place of birth has been included on the survey questionnaire only occasionally during the past thirty or so years.[9]

Two general comments can be made concerning published census materials. First, the foreign born population can be compared with the native population for a wide range of demographic, social and economic characteristics. Comparisons among nationalities and between foreign born populations and various population groups can be accommodated as well. Comparison cannot be made on all geographic levels, however.

Second, census data relating to nativity and national origins are reflective more of ethnic background concepts than those concerning the process of immigration. Census data do not provide information concerning the conditions of immigration other than year of arrival in the United States. More extensive cross-classification of year of entry, citizenship status and social and economic variables would provide insight into the process of immigration. Furthermore, disaggregation according to citizenship status results in the category of alien. Not recognized in the census schedule, however, is the fact that the category of alien includes several legal statuses. Collection of information on current immigration or visa status has the potential of providing data which is consistent with annual flow statistics collected by the INS. Tabulation of such information with year of immigration and various social and economic characteristics could indicate current conditions of specific immigrant cohorts and provide data to analyze patterns of immigrant adjustment. For these purposes it would be useful for year of immigration to be coded in single years.

The vital registration system of the United States represents the final source of information on international migrants to be described here. Annual vital statistics on births, deaths, marriages, and divorces are collected from local registrars by the Public Health Service and since 1960 have been tabulated by the National Center for Health Statistics. National data on vital events are available in both published tabulations, the most detailed of which are included in the annual volumes, *Vital Statistics of the United States* and in public use research files available since approximately 1968.

Basic data are derived from the standard certificates. Place of birth is included on standard death certificates for the decedent, on birth certificates for both parents and marriage and divorce certificates for each partner. However, this information is not widely tabulated in the annual vital statistics reports. No information on mortality of the foreign born population has been published in the annual volumes since 1950. Data on the fertility of foreign born white women have been published fairly consistently; in recent publications, nativity of Negro mothers has been included.[10] Public use data tapes have included nativity of mother on the natality tapes. Beginning in 1978, nativity of decedent will be included on the mortality public use tapes.[11]

These federal data sources currently have the greatest relevance for the study of international migration to the United States. In the near future, Social Security Administration files may become useful for immigration study. The Administration is in the process of coding Social Security Number Application Forms (form SS-5) dating from 1936. Information on place of birth is included in record information.

In describing currently available data, basic inadequacies of each source of information for the study of international migration to the United States have been indicated. This evaluation of data sources suggests two general issues. First, data collection vehicles *do* exist to gather a range of information on international migrants. The INS and, relatedly, the Departments of State and Labor collect flow information on arrivals to the United

States. Stock information is collected every ten years in the census and annually through the Current Population Survey and the Alien Address Report Program. Demographic events occurring to international migrants while in the United States are recorded through the vital registration system. Thus, there is a data gathering framework with a potential for documenting the social, economic and demographic characteristics of international migrants as they enter and remain in the country. Unfortunately, sources of data vary in the concepts which are adopted and which are relevant to the study of international migration. For example, the INS adopts legal definitions of classes of arrivals; the census defines international migration and residential mobility. Thus, flow data cannot be related to stock information. Similarly, social and economic concepts are not consistent among data sources. Basic demographic characteristics such as sex and age are not available for all categories of international travellers. Other characteristics such as occupation may have different interpretations among statistical sources. In sum, the various statistical sources are not coordinated to produce an integrated store of information on the process of international migration to the United States.

A second issue concerns how existing data are exploited. Data which are collected are not fully tabulated in published materials. Moreover, data remain unanalyzed. For example, very limited analysis is conducted for vital events occurring to populations at risk by place of birth. Similarly, little use is made of data derived from the Alien Address Report Program. A particular problem of the INS is that record information is for the most part inaccessible to the nongovernmental researcher. On the other hand, government researchers find record linkage a feasible research strategy; it is potentially possible to link annual immigration data with alien address report records and vital statistics on census records for a variety of research projects. Statisticians at the Social Security Administration have recently completed a study matching Social Security Administration, Internal Revenue Service and Current Population Service information in an effort to study national income distributions. A by-product of this project has been an estimate of the undocumented alien population of the United States.[12]

In summary, this paper has provided a description of the major sources of national data on international migration to the United States and has attempted to briefly point out basic inadequacies of current resources. Two general issues are apparent based on this review. These issues have implications for national immigration research. First, the federal statistical system does provide a framework for potentially documenting the international migration process. However, operational definitions, topics of investigation and methods of data analysis remain uncoordinated among the data collection agencies. Second, much of the relevant data which are collected remains unexploited. Published tabulations are limited in detail; record information is often inaccessible to the nongovernmental researcher; data linkage among existing statistical systems remains unpursued.

This presentation has been a general review. Its goal is to establish a context for evaluating the feasibility of addressing specific research questions and adopting various methods of analysis.

FOOTNOTES

[1] Ellen Percy Kraly, "Systems of International Migration Statistics: The United States as a National Case Study." Ph.D. dissertation (Fordham University, work currently in progress). See also E. P. Hutchinson, "Our Statistics of International Migration: Comparability and Completeness for Demographic Use." 1965 (Mimeograph); and S. M. Tomasi and Charles B. Keely, *Whom Have We Welcomed?* (Staten Island, New York: Center for Migration Studies, 1975).

[2] National sources of information on emigration from the United States are reviewed in Kraly, "Systems of International Migration Statistics"; Tomasi and Keely, *Whom Have We Welcomed?*; Robert Warren and Jennifer Peck, "Emigration from the United States: 1960 to 1970," paper presented at the Population Association of America Annual Meeting, Seattle, April 13-15, 1975); and Charles B. Keely and Ellen Percy Kraly, "Recent Net Alien Immigration to the United States: Its Impact on Population Growth and Native Fertility," *Demography* (forthcoming).

[3] The U.S. Department of Transportation is now (1978) responsible for the processing of passenger data.

[4] Donald Furr, Department of Justice, Immigration and Naturalization Service, Planning, Evaluation, and Budget Office, personal conversation.

[5] U.S. Department of Commerce, Bureau of the Census, *Census of Population: 1970*, Vol. I *Characteristics of Population* (Washington, D.C.: Government Printing Office, 1973), pp. iii-iv.

[6] See Question 166 on the 1970 census questionnaire.

[7] See U.S. Department of Commerce, Bureau of the Census, *Public Use Samples of Basic Records from the 1970 Census: Description and Technical Documentation*, reprint ed. (Washington, D.C.: Government Printing Office, 1977); and U.S. Department of Commerce, Bureau of the Census, *A Public Use Sample of Basic Records from the 1960 Census: Description and Technical Documentation*, 1975 (Mimeographed).

[8] The following subject reports for the 1970 census are relevant for the topic of residential mobility: U.S. Department of Commerce, Bureau of the Census. *Census of Population: 1970*, Vol. 2. *Subject Reports*, Final Report PC(2)-2A, State of Birth, Final Report PC(2)-2B, Mobility for States and the Nation, Final Report PC(2)-2C, Mobility for Metropolitan Areas, and Final Report PC(2)-20, Lifetime and Recent Migration (Washington, D.C.: Government Printing Office, 1970.

[9] See U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-23, No. 25 "Residence

History and Smoking Habits," (March, 1968), and U.S. Department of Commerce, Bureau of the Census, *Current Population Reports* Series P-20, No. 221, "Characteristics of the Population by Ethnic Origin, November 1969" (April 1971).

[10] See U.S. Department of Health, Education, and Welfare, Public Health Service, Health Resources Administration. *Standardized Micro-Tape Transcripts* (Washington, D.C.: Government Printing Office, 1976).

[11] See U.S.Department of Health, Education, and Welfare, Public Health Service, Health Resources Administration, *Data from the National Vital Statistics System*, Series 21, Number 27, "Birth and Fertility Rates for State and Metropolitan Areas" (September, 1977).

[12] See, for example, Clarice Lancaster and Frederick J. Scheuren, "Counting the Uncountable Illegals: Some Initial Statistical Speculation Employing Capture-Recapture Techniques." Paper presented at the American Statistical Association Annual Meeting, Chicago, August 1977.

CRITICAL ISSUES IN USING GOVERNMENT DATA COLLECTED PRIMARILY FOR NON-RESEARCH PURPOSES

Gilbert Cardenas

INTRODUCTION

This paper attempts to assess some implications of the use of government data collected primarily for non-research purposes by social scientists. I shall focus on international migration data produced by the United States government illustrating specific examples using data on Mexican immigration and undocumented migration.

Guided by the thesis that immigration data are primarily collected, analyzed and utilized in accordance with particular sets of social and political goals, I shall attempt to critically evaluate some theoretical, methodological and practical problems associated with government data. At a theoretical level, this problem is conceptualized as a convergence of three types of orientations: political, technical and instrumental rationality. In approaching the subject, I utilize the method of critique, the goal of which is interpretation rather than discovery or validation. The critique is based on the assumption that it is (1) possible to distinguish the social (existential) basis of established knowledge and (2) useful to distinguish distinctive types of practice and knowledge, particularly the distinction between politics and science and the corresponding distinction between political knowledge and scientific knowledge.

In the first part of the paper, the bearing of political rationality on the study of Mexican immigration and on the production of public data on illegal aliens is evaluated and defined as an epistemological problem. Next I analyze problems associated with Immigration and Naturalization Service (INS) policy toward public data on Mexican immigration and illegal aliens and evaluate the bearing and adequacy of the statistical approach in studying Mexican immigration. A relationship between political and technical raionality is suggested as a meaningful conceptual scheme with which to evaluate public data on Mexican immigration and illegal aliens. Third, I analyze the use of public data on Mexican immigration and illegal aliens by the INS. The subordination of public data to the needs and requirements of bureaucratic management and the manipulation of public data for realizing administrative action is conceptualized in terms of the bearing of instrumental rationality on the content of public data and in the framing of public consciousness on the subject of Mexican immigration and illegal aliens.

The following propositions will serve as a point of departure:

1.) The study of Mexican immigration has been biased by a longstanding policy which overlaps the methodology and practice of data collection (social research) with the methodology and practice of administrative action and bureaucratic management of government executive agencies.

2.) Immigration data are foremostly political data collected and maintained for purposes of social control.

3.) It is not possible to separate the quality of data (public data) from the purposes and methodology from which they have been produced.

4.) In their general and present form, immigration data collected primarily for nonresearch purposes continue to remain a serious obstacle to scientific research on international migration.

It follows from these propositions that the INS has a distinctive and significant bearing on the quality and quantity of data produced and by extension on the formulation of what has passed as immigration history and our understanding "knowledge" of that history. INS data are primarily collected for nonresearch purposes and are categorically oriented to social control. Nevertheless, INS data continue to remain the major source on which immigration research is based.[1] In an effort to understand the problems inherent in this fact, I shall begin by discussing ideology and its role in social science.

EPISTEMOLOGICAL PROBLEM: CRITIQUE OF THE DOMINANT POLITICAL PARADIGM

Consideration of epistemological issues is crucially relevant to the understanding of what has been construed to represent the formal study of immigration and what has been allowed to pass as immigration phenomena and our knowledge of immigration history. While epistemological issues include the problem of definition and interpretation, they go beyond such surface levels. Thus, an immediate task is to identify the foremost reason for the existence of immigration data. The following set of questions (some of which will be dealt with below) can be seen as underlying our consideration of relevant epistemological issues. How has the question of immigration been formulated? How has the problem been expressed? What are the basic categories utilized in the analysis? How have such categories affected the types of data produced? What is the validity of the knowledge produced? And what implications do these issues have among the producers and users of such data? What is the role of the State in the production and circulation of data on Mexican immigration? In the case of the United States what bearing do government agencies have on the quality and quantity of data on Mexican immigration? Are the needs and purposes of data collection and usage immersed with the needs and purposes of the political existence and administrative functions of government agencies? Has immigration data been collected primarily for sociological/scientific purposes or has it been collected for other purposes? How does this type of data affect the scientific study of immigration as a social phenomena? To what extent does government data bear on what passes as immigration history and our knowledge of that history (consciousness)?

Political data are characterized in terms of the rationality of administration and can be understood only as a consequence of governing. The type of data and the meaning of the data are generated primarily in terms of the needs and purposes of the state. In the interest of self-preservation, the State maintains control of the apparatus to force conformity and to initiate propaganda. Given the persistence of an elitist class structure in the United States, control of the apparatus to force conformity and to initiate propaganda has been chiefly achieved in terms of controlling the educational system, subordinating religious and other competing knowledge systems, and controlling the mass media systems. I refer to this as constituting a dominant political paradigm. Indeed, the dominant political paradigm intrudes itself into all societal institutions, including science.

With respect to the social sciences the major components of the dominant political paradigm can be characterized by the passive or active penetration of politics into science, the subordination of scientific to political rationality, the influence of political practice on scientific practice, and the co-mingling of administrative metholdology with the methodology of social research. Under such a paradigm, assumptions are not made explicit, and no effort is given toward the clarification or minimization of bias introduced by ideology or political practice. Thus, in its totality, the dominant political paradigm includes a one-dimensional orientation -- a semi-closed universe of discourse. Shaped by political interest, political practice, and its corresponding definition of political reality and articulation of practicality, the dominant political paradigm is also characterized in terms of its ideology and the collective and intellectual consciousness that follows.

The political paradigm has been functionally adequate as a means of fulfilling purposes of State action. Improvements in the political paradigm are oriented to shifting administrative requirements and tasks, changing justifications for action, and changing technical requirements. Political knowledge generated in terms of immigration data remains incapable of solving problems of social reality, although it can falsify our understanding of social reality. In terms of migration, the principal problem underlying the supply and international circulation of labor may be fundamental contradictions in the system of production, i.e., capitalism.

Yet no serious thought is given toward altering the system of production to make it more compatible with the needs of total humanity. Rather, the elite models of development articulated largely through nationalist political ideology purport to change total humanity to fit its own interest, i.e., change the behavior of individual migrants through policy and administrative action.

In the social sciences, incorporation of the dominant political paradigm in sociological theories of migration implies an acceptance of the subordination of conceptual categories to formal and codified relations in the abstract. Considering Georg Lukàcs' classic analysis of reification, it is illustrative to suggest that in the social sciences the study of migration has been synonomous to the formal analysis of a "reified structure of existence." More often than not, independent researchers have failed to consider critically the conceptualization of migration advanced by the State and, thus, have largely remained content to accept the conceptualization in total. In the absence of a rigorous, commonly accepted theory of international migration, social scientists have not been deterred from unqualifyingly using political data. Nevertheless, they continue to remain perplexed as to the ways of interpreting the subject matter when relying upon political data. As a consequence, they cannot offer solutions to problems that transcend political reality.

It is not possible to separate the quality of public data from the purposes and methodology from which it has been produced. In the articulation of this problem it is important to pose two related issues: (1) the appropriateness of data collected for nonresearch purposes; and (2) the contradiction existing between data collected for purposes of governing (administration, social control) and data necessary for building a foundation for the scientific study of a social phenomena. While in our everyday practice we use data collected for nonresearch purposes for scientific research, it is hardly the type of data that can be relied upon for constructing a scientific basis from which immigration phenomena may be studied. Within the scientific community, there exists a strong demand (and corresponding interest on the part of practitioners) to publish. We often relegate the importance of pursuing knowledge for its own ends to a secondary position behind immediate practicalities and personal gratifications. Oriented toward quantity, the quality of our research, including what we accept as data, has remained severely limited. If we are willing to admit and note the limitations of our work, and if we are willing to admit that such practice constitutes nonscientific research, it may be appropriate for social scientists to use data collected for nonresearch purposes and influenced by the dominant political paradigm. Such an understanding, however, presupposes that we cease to equate our authority, methods and techniques with scientific practice. The articulation of and adherence to the standards of scientific methods, the rigorous application of scientific techniques, or the employment of sophisticated and high powered statistical analysis do not constitute in themselves an adequate means of converting data generated for nonresearch purposes and nonscientific research into scientific practice. Despite these efforts, political interest continues to intrude.

The epistemological problem, then, consists of the uncritical acceptance of the dominant political paradigm. The type of knowledge produced by this paradigm is political. Viewed from the perspective of epistemology, it must be considered ideological knowledge.

In the study of Mexican migration, the conceptualization of migration has been underpinned by a dominant ideological orientation. The existence of a dominant ideological orientation in studies of Mexican migration parallels a much broader societal orientation and, thus, may be viewed from many levels. Both orientations are reciprocally related and both bear heavily on our present understanding of Mexican migration. I am referring to the general ideological orientation of capitalist society and to the specific ideological orientations underpinning the study of Mexican migration.[2]

Since the existence of immigration data stems from political accounting, it may be characterized as a rational sociological calculus. The inherent bias of the dominant political paradigm is that it is categorically oriented toward social control. The categories of this political rationality are defined according to the needs and purposes of the State. It is on the basis of State sovereignty that the existence of categories has any meaning. The concept of immigration, the concepts of legality and illegality and the corresponding classification of migrants as legal and illegal, and the distinction between citizen and alien, all of which have figured prominently in the study of Mexican immigration, remain confined and circumscribed by the political frame of reference. The dominant political paradigm is thus substantially based upon State interest. Its development has also been affected by the creation and maintenence of a large scale State bureaucratic organization: the Immigration and Naturalization Service. The uncritical and widespread acceptance and usage of the dominant political paradigm in the social sciences and in public discussion has served to validate the paradigm. While the paradigm may be appropriate for the realization of state interest, it does not necessarily follow that it is appropriate for scientific purposes. By definition, the paradigm reduces the phenomena of immigration to an abstraction and is not oriented by design toward the analysis of social relations in the concrete, but toward the analysis of formal relations in the abstract. The analysis of formal relations takes as given the structural political relations as defined by the State.

How does it happen that data produced within the framework of the dominant political paradigm become accepted as scientifically valid? These data receive three types of legitimations, each of which are essential: officiality, objectivity and technicality. Data collected and distributed by the government are normally accepted as legitimate on the basis of their source: the U.S. Government. Public data are official because they are produced by an official agency of the government or because they are used in official government circles. It would not be unreasonable to assume that public data are immediately accepted as valid on the basis of their officiality until proven otherwise. Public data assume the character of objectivity on the basis that the government purports to be apolitical (nonpartisan), nonideological, and impartial. Depending upon the claim to scientific procedures, public data are also usually accepted as objective on the basis of their complexity and technicality as well as on the basis of their presentation, e.g., annual reports, congressional hearings, etc. When utilized within government circles, public data also assume the character of a rational calculus. If the data are good enough for a large scale and formal bureaucratic organization engaged in the rational administration of public affairs they are good enough for public use -- as the line of reasoning may be expressed. In each of the above stated examples, legitimacy of public data is based on political legitimacy, and thus must be distinguished from scientific legitimacy. Political legitimation of public data neither proves nor disproves the validity of the data. Throughout the history of public action, public discussion and formal study of immigration, these legitimations have been important, particularly in the debates in Congress over the enactment or repeal of immigration legislation, in the expansion or defense of administrative policy and in the frequent attempts by the government to frame a public consciousness toward immigration questions.[3]

METHODOLOGICAL ISSUES: CRITIQUE OF THE ADEQUACY OF STATISTICAL DATA

The adequacy of statistical data on Mexican immigration may be evaluated on the basis of what is available and what is omitted. In terms of public data, availability may be viewed on the basis of how and what types of data are collected and on the basis of how much and in what manner data are reported. Data omission may be viewed in terms of data that are not collected or reported (not tabulated for public use).[4] It also refers to those areas that are not considered important for furthering a better and more complete understanding of immigration processes such as the role and bearing of private interest on the determination of public policy, the bearing of the U.S. Congress on migration processes, the role of the INS, the State Department and other executive agencies, executive (Presidential) action, and the influence of key individuals on the processes and problems associated with Mexican immigration and illegal aliens.

The INS fails to collect and tabulate data that are not immediately related to some crucial aspect of administrative action (social accounting) or bureaucratic management (housekeeping).[5] If collection and tabulation of data are deemed beyond the immediate needs of administration and management, they are not likely to be initiated by the INS. Similarly, low priority is given to data that could prove embarrassing to the INS. Thus, the INS confines itself to the collection, tabulation and distribution of data that is either mandated by law, requested by the Congress and other government agencies or otherwise helpful for its administrative and management strategy.[6] For example, the INS repeatedly reports the number of illegal Mexican aliens reportedly located or deported for any fiscal year or time frame. This is considered a reasonable activity given its jurisdiction in immigration matters. From the standpoint of the state the INS is properly executing one of its functions. Yet the activity of apprehending illegals is only one aspect of the total migration phenomenon relevant to that event and activity. Other aspects either go unreported or undisclosed. For example, how many persons were stopped and questioned before an apprehension was made? What is the proportion of all such persons who were stopped and questioned to the total number of persons apprehended? From the point of view of the State collecting such types of data would be considered absurd. Yet from the view of civil rights advocates such data may certainly be welcomed. Taking the phenomenon of migration as the major concern both apprehension data and data in the number of contacts are equally crucial to our understanding of the immigration question. The example just taken may be seen as more than simply a resolution of values expressed through priorities. It underscores a fundamental conflict between State interest, which in this case is linked to social control, and interest in the phenomenon of migration, the latter of which may be characterized as of scientific interest. We may also suggest that an entire set of questions could be raised from the viewpoint of the apprehended alien. Switching the alien from object to subject in the data collection process does not in any way depart from an academic, intellectual or scientific interest in the phenomenon of migration. Yet from the standpoint of State interest this also is rendered totally absurd. This example should reveal the inherent bias of state interest and the inherently political character of government data.

Reviews and critiques of official immigration statistics have been written in the past and serve as useful aids to students of immigration.[7] Among other things, these critiques have pointed to availability and quality of immigration statistics. These efforts have not focused on statistics collected on illegal aliens. Persons working with immigration statistics will find that despite a long experience in collecting statistics,[8] they have been among the most useless set of statistics collected by the government.[9] While the internal consistency of immigration statistics has improved during the last fifteen years, there appears to be much more work needed in improving the data and in subjecting the data to more thorough analysis.[10]

The Annual Report of the Commissioner of Immigration and Naturalization, published under the auspices of the Justice Department, has been the main source reporting immigration statistics. The data, tabulations and analysis presented in the Annual Report represent only a small fraction of the data collected and tabulated by the INS.[11] Nevertheless, these annual reports have constituted the main source on which public officials, scholars and students of immigration have had to rely on when using statistical data.[12] Despite the yearly and periodic collection of a tremendous volume of data and the proven public reliance on immigration statistics presented in the Annual Reports, the INS has almost completely failed to present an analysis or explanation of the reliability of data gathering procedures and measurement techniques, methods and problems of data collection and analysis, sources of error, and problems of generalizability. The INS has failed to report the manner in which data are stored and the manner in which data may be used or evaluated by the public and independent researchers (INS data heretofore have been regarded as the exclusive domain of the agency). In effect the Annual Reports of the INS provide little opportunity for public evaluation and criticism of the policy, methods and procedures used by the INS in collecting, processing, reporting and storing data.[13]

Nevertheless, the INS uses its data widely. The widespread and multi-purpose use of the public data by the INS has reached flagrant proportions when one considers the poor quality of its data. To illustrate the problem let us consider a table provided by the INS and entered for the record in a recent Congressional committee hearing. While the table, "Projection of Jobs Which Could be Created by Improvement in Immigration Enforcement Programs" purports to be accurate, no account is given to verify its accuracy, the basis at arriving at these projections nor the manner in which the data were obtained.

TABLE I

Projection of Jobs Which Could Be Created by Improvement in Immigration Enforcement Programs

Location	Agriculture	Heavy industry	Light industry	Service	
Northeast region	1,000	35,000	58,000	72,000	166,000
Southeast region	30,000	15,000	25,000	49,000	120,000
Northwest region	56,000	25,000	30,000	45,000	156,000
Southwest region	248,000	75,000	100,000	135,000	558,000
U.S. total	335,000	150,000	214,000	301,000	1,000,000

U.S. House of Representatives (1974) Subcommittee on the Committee on Government Operations, Immigration and Naturalization Service Regional Office Operations. Washington, D.C.: Government Printing Office.[14]

Yet since the table was prepared and released by the INS and published in a Congressional hearing, it appears to the uncritical reader as legitimate, accurate, objective and technical (scientific). Likewise a table on estimated costs of illegal aliens is illustrative of this point.

TABLE II

Estimated Cost of Illegal Aliens

DISTRICT	ADM Enrollment	CE per pupil	Cost to City	Cost to Federal
New York City	$1,113,826	$2,300.00	$78,000,000	$6,864,000
Boston	93,990	892.30	4,889,462	430,273
District of Columbia	147,609	908,10	7,814,750	687,698
Miami (Dade County)	240,100	753.62	10,549,045	928,316
Detroit	270,316	888.73	14,005,927	1,232,517
St. Louis	101,537	760.68	4,502,927	396,258
Dallas	160,792	525.23	4,492,597	433,277
Fort Worth	84,057	508.67	2,492,749	219,362
San Antonio	74,747	457.12	1,992,915	175,297
Denver	96,561	763.31	4,297,058	378,141
Los Angeles	654,201	742.69	28,326,136	2,492,700
San Francisco	88,183	1,332.41	6,850,012	602,801

Source: U.S. Congress, Immigration and Naturalization Service Regional Office Operations, Hearings Before a Subcommittee on the Committee on Government Operations, Part 4, p. 390, House of Representatives, Ninety-third Congress, 1st Session, U.S. Government Printing Office, Washington, D.C. 1973.

Former Commissioner Leonard Chapman was quoted by a *Washington Post* reporter as relaying a variety of inconsistent estimates regarding illegal aliens:

> Chapman said that 1.5 million to 2 million illegal immigrants are not apprehended annually. The figures could be as high as 4 million, Chapman said. He also estimated "conservatively" that about $12 million a day, or about $2.8 billion annually, is leaving the United States. In a speech in Houston last week, Chapman used a different figure. "Last year," he said, "the Immigration Service apprehended nearly 800,000 illegal aliens -- equal to more than half the population of the city of Houston. Though this was ten times the number we apprehended just a

> decade earlier, it was probably no more than one of four who entered the country illegally. Thus, according to Chapman's figures in Houston, the minimum number of illegal immigrants was not 1.5 million to 2 million, but more likely 2.4 million.[15]

These INS figures are not only inaccurate but also misleading considering their citation in important mass media news sources. Chapman's estimate before the House Subcommittee on Immigration, Citizenship and International Law, is illustrative of the nearly total disregard for accuracy: "We now estimate, and I emphasize, it is an estimate, that the number of illegal aliens in this country may be between 4 and 12 million.[16] Chapman's credibility and INS procedures are seriously undermined when the range of variance is so great.[17] Nevertheless, social scientists having very little access to alternative sources rely on these same sources and have quoted INS statistics at will. This is done notwithstanding the manner in which some of these statistics have been formulated.

> When asked how the immigration service determines how many illegal aliens are in the U.S. and how many come in annually, Chapman said in an interview with the Washington Post that these statistics come from estimates for each of the thirty-two districts in the United States submitted by the district directors. Asked how the district directors get their estimates, Chapman responded that they have a formula, and directed a reporter to call the director for Washington. The district director, David L. Drummond, said in a telephone interview that he knew of no formula. Drummond later referred his caller to the regional office in Richmond, where more information was available. Edward T. Sweeney, associate regional commissioner for operations for the Southwest region, said in a telephone interview: "We just went through trying to make an estimate. I don't think any formula existed. I'm at a loss." S. LaVerne

> Jervis, public information officer for the Immigration Service, said, "There are formulas and there are formulas. But it sure isn't scientific." The estimates are based on "leads" that immigration investigators are unable to follow up, monitoring of electronic sensors used along the Southwest border with Mexico, where 80 to 90 percent of illegal immigration comes from, local police estimates, economic conditions in the countries where the immigrants come from and "street wisdom," according to Jervis and other officials.[18]

According to former Acting Attorney General Laurence H. Silberman, the issue of illegal aliens was "The first priority of the Justice Department of all the programs we have and allegedly it was a first priority for the Subcommittee on Immigration, Citizenship and International Law, the chief committee assigned by the House Committee on the Judiciary to oversee immigration affairs."[19] For the INS the illegal problem has always been its number one priority. Yet despite high priority and despite Congressional appropriations of $143,298.000 in 1974 to the INS and approximately $183,000,000 in 1975, and despite over seventy years of experience, the INS is still at a loss in substantiating its estimates and has yet to formulate policy toward public accountability regarding its data gathering procedures and methodology.[20] In the context of the language and method in which these tables are presented, it is not unreasonable to conclude that . . . these tables function to identify a social problem and also at the same time suggest a solution: more funding for INS enforcement programs (which may very well include actual activities or screened activities for other agencies). In terms of their presentation they prove nothing and thus must be considered worthless to a critical researcher and user of public data.

The tabulation of statistical data on immigration assumes two additional forms, both of which are related to the internal use of data: administrative action and bureaucratic management. Bureaucratic management may be viewed in terms of the internal use of the bureaucratic hierarchy. Such data are taken and tabulated on the basis of internal management and reporting processes necessary for the maintenance of the bureaucratic process.[21] Activities, accomplishments, problems of INS officers and units are evaluated on the basis of these statistics and tabulations. Only occasionally does this type of data reach the public. Much of this data is either destroyed, hidden, lost or buried in agency files. Such data are generally not made available for public use or for research purposes, and if they are, the agency selectively (arbitrarily) decides how much, to whom and when such data can be released. The timely use of such data is thus crucially related to the identification of their existence. The INS has controlled both the identification and release of these data in that no up-to-date index of INS data tabulations, computerized data sets, printouts or agency files are reported to the public.[22]

Upon special requests from the Congress, other governmental units or occasionally from independent researchers, the INS will submit data that were specifically tabulated for the purpose of the request. No index of these tabulations has been made available and consequently researchers have to rely on chance in identifying or obtaining such data. The possibility of identifying or obtaining this type of data is related to the timeliness of issues and to the location of the material, which unfortunately is often to be found only in rather obscure sources (Congressional Record appendix, Congressional hearings and reports, and inter-agency reports).

What can be done to improve this situation? It would be in the public's interest if responsibility for collecting and reporting data on immigration was removed from the INS/Justice Department and assigned to the U.S. Bureau of the Census or to an independently created government statistical reporting agency. In addition to the many problems associated with the use of INS data by the agency and its personnel, there are, as described in this paper, serious methodological and technical problems associated with the collection, preparation and storage of INS data. After seventy years of experience, the immigration service has proven itself incapable of collecting and preparing data and has been unwilling to correct itself with respect to the soundness and adequacy of its own data. Commissioner Castillo and his staff have recently initiated some changes that should correct some of these problems. However, the technical capacity to deal with these problems may not be achieved under the present structure of the INS.

In addition, the convergence between the purposes of social accounting and bureaucratic action and management has rendered the INS incapable of carrying out its mandate and thus it may be advisable to separate these activities.[23] In the preceding section the political paradigm was identified as the dominant approach bearing on the study of Mexican migration, as the single most important influence on the data. The single most important data form is statistical data. Statistical data provide an efficient and practical means of minimally answering the questions raised in the social accounting process and minimally necessary for the functioning of the administrative process (i.e., political requirements and bureaucratic management). Social accounting translated into statistical analysis can be conceptualized in terms of the INS as a convergence between political and instrumental reason. As a convergence, the technical and instrumental character not only shields the essentially political character of the data, but through the legitimation and validation process described above also functions to advance the appearance of statistical data as an essentially necessary requisite for the rational conduct of bureaucratic administration.

In the process of social accounting for the purpose of social control statistical data becomes the "official" language of administrative action, bureaucratic management and legislative policy information. From the standpoint of the study of Mexican immigration, statistical data assumes the character of indispensability so that in the social sciences no serious thought can be given to the study of Mexican immigration and illegal aliens without use of public data no matter what the quality of the data. The heavy reliance on statistical data provided by the State, by social science students of Mexican migration and by a variety of other observers of public affairs, effectively removes from consideration the use of other types of data and even categorically removes from consideration the asking of different questions and the utilization of alternative approaches to the dominant political paradigm. In a very real sense the process of social accounting, as a consequence of the factors discussed, has developed into a type of closed system. Viewed from the perspective of domination social accounting is immediately distinguished from social science. The knowledge produced through social accounting is shaped by the paramount bearing of political rationality (needs and goals of the bureaucratic organization). Data produced under such circumstances remain political data, the character of which remains independent of its technicality and its claims to scientific validity.

PRACTICAL ISSUES: THE CRITIQUE OF INSTRUMENTAL RATIONALITY

The methodologies and procedures for producing and distributing data have been inseparably related to the methodology and strategy of the INS administrative operations and activities with respect to immigrants, particularly illegal aliens. The minimal conditions for administrative action of the INS are sufficiently established by law. The statutory and codified basis of INS authority in immigration affairs is primarily a formal matter. However, INS jurisdiction is carried further in practice (activity). At a formal level INS activity involves a determination of the status of migrants and aliens (legal, illegal, permanent residents, temporary workers, etc.). The enforcement of immigration laws ranges from the processing of immigrants to the location and removal of illegal and undesirable aliens. In the past the formal matter did not generate widespread public attention to the immigration issues. This low level of public salience and lack of attention from a bureaucratic point of view is not considered desirable, particularly by a relatively low priority agency such as the INS. Thus a goal of a low priority agency is to achieve high priority from other bureaucrats and the public. Essential to the realization of this goal has been the policy and practice of creating widespread public interest in those areas concerning immigration deemed important by the INS. Likewise the INS distracts public interest from those areas that may be embarrassing to INS officials.

The INS obtains and selectively releases information that is crucial for the realization of its operational strategy. The widespread use and flagrant abuse of public data as a means of realizing policy and strategy stand out as a prominent feature of administrative action. Most Americans are not familiar with illegal alien migration, most do not know illegals and most do not feel intimidated by the presence of illegal aliens. Outside of the border region and its communities and specific types of agricultural and industrial enterprises, illegals pose no serious problems to the American people. It remains an empirical question of illegal aliens posing a serious threat in those areas in which they have been traditionally identified since the effects of other and more serious problems have not been taken into systematic consideration (labor market discrimination and domination by the employer sector, economically depressed areas, corruption, Congressional neglect, etc.). However, the INS is not prepared to deal with these issues and it has no statutory responsibility to offer solutions.

In terms of achieving the bureaucratic goals of INS, the most salient issue is labor, particularly the issue of suprplus labor. The establishment of a clear and present danger between the relationship between illegal alien migration and surplus labor is achieved through statistical reporting and outright propaganda. Such efforts are not only directed toward the public, but also directed to the Congress and other executive bodies. The objects of the propaganda campaigns are primarily Mexican aliens, the goals are the generation of public fear toward illegal aliens, the main purpose of which is to minimize saliency of certain issues. Statistical data on illegal aliens are grossly abused when used by the agency in this manner. Abuse occurs through the improper evaluation of data, incorrect interpretations and the intentional presentation of data in a manner that could easily be misinterpreted (by public officials, social scientists and other observers of public affairs). The manner in which public data are used by a public agency often determines the manner in which data are collected and the quality and quantity of the data produced. Thus this may be considered another dimension of the political (in contrast to scientific) content of public data on Mexican immigration. The accumulation and utilization of such public data then becomes synomomous with the realization and extension of domination, i.e. social accounting for social control.

Public data and propaganda are also used as an integral aspect of operational strategy during highly mobilized campaigns to locate and apprehend illegal aliens. These campaigns are launched periodically, usually during times of depression, recession, or minor contractions in the economy. During these campaigns everyone from the Commissioner General of Immigration, the Attorney General, legislators and even the President are involved in calling attention to the alleged menace and adverse effects posed by the presence of illegal aliens. In what might be compared to a "reign-of-terror," the exaggeration of issues invariably involves the use of statistics. The statistical description of the dimensions and proportions of issues is always presented with a sense of alarm, urgency and a call for action. The INS not only has been responsible for launching campaigns, but in each case had been the principal agitator. From the standpoint of this analysis the political sensitivity of data is further increased in proportion to the distortion of statistical data on illegal aliens. Closely following the call for action is the demand for the expansion and increased appropriations for the INS.

The co-mingling of strategy and methodology is further revealed when the INS, as a matter of policy, seeks to intimidate aliens through the creation of public fear. The reporting of large-scale arrests and voluntary deportations and propagandistic advertising has been considered by the INS as a highly expedient method of scaring illegal aliens out of the country. In the past the INS has calculated the estimated number of illegal aliens who were virtually scared out of the country. The constant yet selective reporting and disguised propagandizing by the INS during campaigns is designed to distract attention from the harshness, injustice and at times illegal activities of the INS. The generation of favorable press reaction is a tactic used by the INS through campaigns. The INS actions are made to appear as both necessary and routine through the administered publicity campaign that precedes and accompanies the operations campaign waged by the INS. It is this type of public accountability that makes a sham of the non-political appearance of public data. The fusion of political rationality with instrumental and technical rationality is a characteristic of the expertness in the administration of public accountability that has recently developed within government circles. Administered information is a distinctive characteristic of the formation of a totalitarian logic and in the extension of domination.

Since its inception the INS has attempted to justify its existence as a para-military type agency, particularly with respect to its activities along the U.S.-Mexican border. The Annual Reports of the Commissioner General have been replete with statements regarding the military capability even during the time that it was under the administrative jurisdiction of the Department of Labor. In 1941 the INS was transferred to the Department of Justice. Accompanying the jurisdictional shift was a shift in the nature of administrative activities. Prior to 1941 the INS was engaged in dual activities. As an agency of the Department of Labor the INS was responsible for many industrial related activities involving the formulation and realization of administrative policy concerning labor. Through its enforcement activities the INS was involved with legislative and judicial efforts. Since the shift to the Department of Justice the INS has increasingly been stripped of its industrial related activities or has abandoned them through administrative discretion. These changes directly paralleled the changes in immigration law. The close connection between immigration policy prior to World War II and labor policy has increasingly given way to what might be viewed as a formal disassociation of immigration policy from labor policy since World War II. The jurisdiction shift has also resulted in a qualitative change in the model activities of INS: investigative, legislative and judicial. As a unit of the Department of Justice, the INS has assumed the character of other Justice Department agencies, particularly the FBI. The present INS activities are far more legalistic, secretive, and self-serving than ever before and increasingly more removed from public scrutiny. Although, in appearance, the INS is relatively more open than the FBI, it has been by design and practice expanding its covert activities. Many policies and practices utilized by the FBI are increasingly being utilized by the INS such as the reliance on propaganda, public deception, infiltration, secret lobbying, secret missions, and other similar types of undercover and covered-up activities.

The current anti-alien/anti-Mexican offense was initiated by General Leonard Chapman as Commissioner of Immigration and Naturalization under the Nixon/Ford administrations. Following a typically military style, the recognition of an enemy was an essential component of the overall strategy. Unfortunately, a major part of the current debate over immigration matters is consumed in responding to the adverse effects of Chapman's and former Attorney General Saxbe's propaganda campaign. While the propaganda campaign has been met with a counterattack by Chicanos and immigration experts, and while Commissioner Castillo and his staff have worked toward stopping the campaign, the long run effects are still with us to the extent that it established the basic perspective toward immigration and set limits on the types of issues that emerge as relevant. Some influential government officials and scholars are now arguing that we don't need more research. This position has made its way into official policy circles. To illustrate I quote a February 1978 memoranda from the Attorney General's Office: "Enough research has been done to ascertain the general nature and direction of the undocumented alien situation." This is followed by the statement that "It is not necessary to know the exact dimensions of the problem to understand the long-range impacts and their policy implications."[24] In the light of the confusion generated by the propaganda campaign, in which data and research figured prominently, in exaggerating numbers and casually associating undocumented workers with all types of social problems, further research must be conducted for the purposes of correcting the record, untangling the misuse and abuse of data and probing into areas here-to-fore neglected.

Independent researchers who have done primary research, including all types of field research, and who have relied upon primary and secondary data for the analysis of the immigration question and the undocumented migration phenomenon are the very people who are maintaining a solid demand for facts and rules of evidence and are cautious to make definitive conclusions.[25] On the other hand some scholars who have not bothered to collect primary data and who have made incredibly bad use of existing data are the very persons to start with conclusions, use data arbitrarily, and then argue that further research is not necessary.

In recent years millions of dollars have been invested in studying the characteristics and behavior of immigrant workers, particularly illegal aliens. To my knowledge, little attention and no money has been allocated to seriously study international migration in the framework of the political economy of international affairs and to undertake a class analysis of the immigration question. This framework is rejected as a basis of studying international migration on grounds that the scope of such a study would be too large and, therefore, would not produce practical results and on the grounds that the results could prove to be embarrassing for the United States, particularly the private sector. In effect it is defined as the counter position to the dominant political paradigm. It is clearly within our means and within our technical capacity to initiate such studies and to evaluate the results in terms of their short and long run practicality.

SUMMARY AND CONCLUSION

The focus on rationality has analytical value (utility) in the evaluation and interpretation of problems. In discussing the implication of using government data collected primarily for non-research purposes, it was necessary to include discussion on the general methodology of inquiry. A logical and necessary starting point in any serious discussion of methodology must include an analysis of the presuppositions, assumptions, and values introducing upon the process of inquiry. The issues raised here can be expressed not only in terms of the varying ways in which definitions of phenomena (problem of immigration) have been raised, but also in terms of the broader problem of the ways in which conceptualization, validation, and interpretation occur, what is construed to be knowledge and the manner by which knowledge comes to pass.

Questioned are the (1) purposes for which international migration has been studied; (2) assumptions made in studying international migration at all phases from conceptualization to interpretations; (3) primary terms and basic concepts; (4) theories and conceptual frameworks used in studying international migration. Questioned also are the (1) appropriateness and adequacy of the system of classification used in the study of international migration; (2) methodological strategies in which international migration has been studied; (3) practitioners who study international migration; and (4) scientific justification for the study of international migration.

The problem of public data on Mexican immigration and illegal alien migration was conceptualized at three levels of analysis: epistemological, methodological and at the level of instrumental action. In the epistemological critique attention focused on the substantive importance of the bearing of the dominant political paradigm, identified as a non-scientific paradigm, on the establishment of the structure and content of the knowledge base on Mexican immigration and illegal immigration history. The political character of the major premise -- state sovereignty, the political character of the main categories, i.e., national border, legal, illegal, citizen, alien and the character of the inquiry in which analysis of the problem is confined, i.e., social accounting, as well as the main purpose of inquiry, i.e., social control were revealed in the epistemological critique.

Other parallels could be drawn regarding government data. In contrast to the goals of science, the political paradigm was viewed as deriving from political rationality and in the course of its logic and inquiry could only produce political knowledge. The close connection between theory and practice expressed in terms of the interdependence between the INS policy toward methodology and data gathering procedures and practices of administrative action and bureaucratic management reveals the ideological content of public data on Mexican immigration and illegal aliens as well as the ideological content of the knowledge base on the subject and the inherently ideological basis of our understanding of Mexican immigration history. In contrast to science and scientific knowledge, political knowledge remains, from the beginning to the end, inherently a type of ideological knowledge that is more closely grounded in legitimacy than on validation. In the midst of structural inequality, where minority interests dominate over majority interest, independent scholarship, like independent public opinion, is reduced to a myth. A close relation continues to exist between the ideas of scholars and the interests of political authorities. As Quinney has suggested, a good deal of the research supported by government grants provides information for manipulating and controlling the population.[26] The scientization of politics and administration go hand in hand with the politicalization of science.[27] Moreover, the accumulation of wealth and the circulation of money exert an even greater influence on these relationships.

In contrast to the political ideological paradigm is the critical scientific paradigm. It is characterized in terms of explicit standards that guide the process of inquiry. A scientific paradigm at its best is critical in that it must proceed from a skeptical stance. Ignored are assumptions of fixity and universality of political reality. A scientific paradigm includes a philosophy, a set of assumptions and premises, a methodology, refined methods and techniques, a body of knowledge, and a theory of practice. It adheres to criteria by which facts are validated and knowledge evaluated. A scientific paradigm generates its own definitions, concepts, propositions, hypotheses, theories, and models. In the realm of methodology, attention is given to the study of methods and not just the application of methods. A critical and scientific analysis would not take political relations as given and would not subordinate nor confine the analysis of social phenomena to a formal-categorical level.[28] Unlike the dominant political paradigm, it is not necessary for a critical-scientific paradigm to limit crucial questions and suggest practical solutions that are directly linked to its survival. The adequacy and appropriateness of a critical-scientific paradigm may be evaluated according to its capacity to go beyond the political paradigm in the questions that are posed and in the solutions that are offered.

While the physical sciences struggled to free themselves from religious consciousness (in the midst and in spite of knowledge), the social sciences must also struggle themselves away from political consciousness (political knowledge) before they can make significant advances under the problematics of science. Only at this point can the social sciences make contributions to humanity that are comparable to the physical sciences. Their services must be in the interest of total humanity and not in the preferred interests of powerful groups.

FOOTNOTES

[1] The interests, activities and uses of the INS of immigration data may vary from one administration to another and may vary in efficiency and intensity from one year to another, but their character does not vary. Commissioner Leonel Catello's effort not to rely on and use the wildly exaggerated statistical estimates of his predecessor (General Leonard Chapman) may be considered a welcome change in policy toward data usage. Yet it does not change or alter the thrust of INS data collection.

[2] Although beyond the scope of this paper this convergence has its basis on the economic rationality of capitalism one form of which is related to the problem of reification. In this sense, we posit the notion of convergence of various types of tendencies to characterize what we refer to as the dominant political paradigm: (1) the reactionary and conservative origins of the conventional social sciences; (2) the anti-Marxists, anti-critical stance; (3) the tendency toward affirming the legitimacy of the state; (4) the tendency toward maintaining a social order orientation and service to the state role; (5) the corresponding expectation of sharing ruling class power; (6) the maintenance of a strong corporatist and authoritarian orientation; (7) private (individual) and professional support for the capitalist system and

the state; (8) maintaining a corresponding anti-working class, antiproletarian position; (9) maintenance of a racist, ethnocentric and culturalistic position; (10) the tendency to disregard history; (11) preoccupation with practicality and instrumentality. These factors are viewed as contributing to the "evolution of the problem of Mexican migration" as well as to the present inability to fully comprehend the dynamics or significance of this movement.

[3] Ernesto Galarza, labor economist, has argued this point very convincingly: *Spiders in the House, Workers in the Field*. South Bend, Indiana: University of Notre Dame Press, 1972.

[4] It is necessary to present a historical analysis of Mexican immigration and to derive relational propositions concerning the dynamics of that process, including at every step of the analysis both the empirically interpretable and the theoretically possible, if we are to fully grasp the meaning of the contrast between the availability of data and the omission of data. For the moment the contrast can only be suggested through an assessment of various information sources in which bits and pieces of public data appear.

[5] This is a consistent feature of the dominant political paradigm and also one of its chief limitations: the

failure to go beyond situationally-bound knowledge.

[6] Arrest records, judicial cases, number of cases processed, violation rate, man-case load rates, etc.

[7] Ferenczi, Imre, *International Migration*, 1, Statistics (Publication 14; New York: National Bureau of Economic Research), 1929; Gamio, Manuel, *Numero, Procedencia y Distribucion Geografici de los Immigrantes Mexicanos en los Estados Unidos*, Tulleres Graficos y Diario Oficial, Lic. Verdad Numero 2, Mexico, D.F., 1930; Taylor, Paul S., *Mexican Labor in the United States: Migration Statistics*, Part 4, Vol. 12, No. 3, Berkeley, University of California Publications in Economics; Kunna, J. J. and Stanforth, H. L., "Immigration and Naturalization Statistics - Their Nature, Volume, and Method of Compilation;" in U.S. Department of Labor, *Lectures*, INS Lecture No. 30, January 7, 1935, U.S.G.P.O.; Bloch, Louis, "Facts About Mexican Immigration Before and Since the Quota Restriction Laws," *Journal of the American Statistical Association* (March, 1939), pp. 50-60; Hutchingson, E. P., "Notes on Immigration Statistics of the United States," *American Statistical Association Journal*, Vol. 53: 284 (December, 1958), pp. 963-1025; Peterson, William, *Population*. The Macmillan Company, New York, 1961; Grebler, Leo, *Mexican Immigration to the United States: The Records and Its Implications*. Mexican American Study Project, Advance Report 2; Morton,

J. E., On the Evolution of Manpower Statistics, the W. E. Upjohn Institute for Employment Research, Studies in Employment and Unemployment, Kalamazoo, Michigan (December, 1969), pp. 36-79; North, David. *The Border Crossers: People Who Live in Mexico and Work in the United States*. TransCentury Corporation, Washington, D.C. (April, 1970); Hoffman, Abraham, "Mexican Repatriation Statistics: Some Suggested Alternatives to Carey McWilliams," *The Western Historical Quarterly* (October 1921), pp. 391-404.

[8] The government first began collecting statistics relative to immigration in 1819 when passengers arriving on sea vessels were enumerated. The Department of State collected statistics on immigration (1820-1874) and the Bureau of Statistics under the authority of the Treasury Department collected statistics 1867-95. The Department (Immigration Service) from 1895 to 1933 gathered statistics and from 1933 to 1941 the Bureau of Immigration was assigned the responsibility. Since 1941 the Department of Justice (INS) has been responsible for collecting statistics.

[9] See Note No. 7.

[10] The situation is far better than it was before the turn of the century but far worse off today if one considers the budget and technical availabilities of the government

and if one considers the magnitude and dimensions of traffic along the U.S.-Mexican border.

[11] Thirteen tables (statistical summaries) constitute the extent of INS annual statistical coverage of illegal aliens.

[12] An examination of the literature on Mexican immigration and illegal aliens reveals that the Annual Reports are the most quoted information source.

[13] The INS policy and methodologies could be compared with the policies and practices of the U.S. Bureau of the Census. While there are numerous and serious problems with census data, the Bureau at least makes some effort to evaluate the quality and adequacy of the data and the procedures used. The Commissioner-General and the INS recently came under considerable and serious public, Congressional and scholarly criticism with regard to the data gathering procedures, methodologies and quality of data.

[14] Table has been summarized.

[15] Lawrence Meyer, *Washington Post*, February 2, 1975.

[16] U.S. Congress, Hearings, *Illegal Aliens*, Subcommittee on Immigration, Citizenship and International Law, 94th

Congress, 1st session. Washington, D.C.: U.S. Government Printing Office, 1975.

[17] The INS has commissioned social scientists to arrive at estimates of flows and numbers of illegal aliens in the U.S. The much criticized "Lesko Study" is one example of the failure to arrive at reliable estimates. (Lesko Associates, "Final Report: Basic Data and Guidance Required to Implement a Major Illegal Alien Study During Fiscal Year 1976." Report prepared for the U.S. Immigration and Naturalization Service, Washington, D.C., (October 1975). For a discussion of the difficulties involved in doing research on illegal migration, see Julian Samora, *Los Majados: The Wetback Story.* North Bend, Indiana: University of Notre Dame Press, 1971.

[18] Meyer, *op. cit.*

[19] See testimony of Lawrence H. Silberman, Acting Attorney General, Department of Justice, in U.S. Congress, *op. cit.*

[20] U.S. Congress, *op. cit.*

[21] Examination of INS records and reproduction of reports in Congressional hearings reveals the existence of this type of data.

[22] The Freedom of Information Act, as Amended, 1974, is likely to change this, since all federal agencies are now required to publish indexes of records.

[23] Despite criticism from the Congress and the public, the INS continued to ignore suggestions for change with regard to its data collection practices until Commissioner Castillo's administration.

[24] Office of the Attorney General, "Illegal Immigration: President's Program." U.S. Department of Justice, Inter-agency memorandum, February 1978 (mimeo).

[25] See Julian Samora (*op. cit.*) David North and Marion Houstoun, *The Characteristics and Role of Illegal Aliens in the United States Labor Market: An Exploratory Study*. Washington, D.C.: Linton and Company, Inc., 1976; Wayne Cornelius, "Illegal Mexican Migration to the United States: Recent Research Findings and Their Policy Implications," Department of Political Science, Massachusetts Institute of Technology, 1977; Alejandro Portes, "Why Illegal Migration? A Structural Perspective," Department of Sociology, Duke University, 1977.

[26] Richard Quinney, *Critique of Legal Order: Crime Control in Capitalist Society*. Boston: Little, Brown and Company, 1974.

[27] Jurgen Habermas, *Toward a Rational Society*. Boston: Beacon Press, 1971.

[28] Abstract analysis -- the analysis of constructs; partiality emerges through perspectivism grounded in political practice and confirmed in political reality. Formal analysis -- analysis corresponding to the fundamental social relationships. Analysis that transcends political exigencies.

SOME THOUGHTS ON THE STUDY OF IMMIGRATION PATTERNS WITHIN THE MODERN WORLD ECONOMY: ESTABLISHED AND ALTERNATIVE DATA SOURCES

Elizabeth McLean Petras

These exploratory comments are addressed to two matters: (1) consideration of the usefulness of the world system paradigm for understanding large-scale, cross-national labor migrations; and (2) proposal of some techniques for the study of immigration within the world-system framework and discussion of available sources appropriate for developing this perspective. Ultimately, the procedures outlined ought to contribute modestly to a "conceptualization of the past"[1] wherein interpretations or assessments can be made about three phenomena: the nature of social change involving geo-occupational dispersal and realignment of human groupings on a global scale; whether cross-national labor migrations emerge out of, and contribute to, the maintenance of an international division of labor; and whether the mechanics of those movements demonstrate the existence of a global labor market.

I

The growing tradition of quantitative and serial social history has had as a basic objective the formation of "historical fact into temporal series of homogenous and comparable units, so that their evolution can be measured in terms of fixed intervals."[2] But "merely to recount the course of events, even on a world-wide scale, is unlikely to result in a better understanding of the forces at play in the world today unless we are aware at the same time of the underlying structural changes."[3] While disagreeing with Geoffrey Barraclough's designation of contemporary history as unique, I agree with his observation that:

> "One of the distinctive facts about contemporary history is that the forces shaping it cannot be understood unless we are prepared to adopt world-wide perspectives; and this means not merely supplementing our conventional recent past by adding a few chapters on extra-European affairs, but re-examining and revising the whole structure of assumptions and preconceptions on which that view is based. Precisely because American, African, Chinese, Indian and other branches of extra-European history cut into the past at a different angle, they cut across traditional lines; and this very fact casts doubt on the adequacy of the old patterns and suggests the need for a new ground plan."[4]

OLD PHENOMENON, NEW DEBATES

New theoretical currents have entered the debate about the cause and impact of the use of international migratory labor. Prevailing economic theory in the past has generally argued that migration was a natural process occurring between agricultural sectors and industrial sectors, or between underdeveloped and modern societies. The leveling or equalizing influence of migration it posited, contained within it the potential for stimulating development in the areas of out-migration. However, contesting theories have recently advocated that rather than altering relations of inequality between regions of out-migration and poles to which migrants are drawn, such labor exchanges may actually serve to reinforce these disparities. Importation of surplus population drawn from the poorer regions in the periphery has permitted the reduction of periodic labor shortages within the metropolitan core. At one and the same time, the global political-economic advantages exercised by the core at the expense of the periphery, have contributed to creating economies with large surplus populations whose labor is available to be exploited. Both represent features of the modern world-economy. Rather than focusing only on the short-term importance of immigration, this argument gives attention to the manner in which labor from the periphery is incorporated into the capital accumulation process within the core during times of general or sectoral expansion, and restricted or thrown back on the periphery during periods of contraction, thus adding to the disadvantages experienced by the periphery under the impact of world economic crisis.

Much of this debate has been located in Western Europe where an ample body of current research and data have been available.[5] Only recently has it begun to receive a hearing in this country. In the United States, the studies of demographers and social psychologists have provided us with empirical profiles of the individuals who migrate, the organization of migratory networks, and the experience of adaptation and assimilation popularly thought to be associated with the process of migratory relocation. At the level of the individual what emerges are patterns which appear to have been repeated in a variety of historical instances (although interpretations about the meaning of these patterns vary).

Surprisingly, however, neither abundance nor accessibility has characterized the empirical research and quantitative data at the macro-historical, macro-economic level of analysis. In the case of the core-periphery perspective, several explanations might be offered for the paucity of empirical research and serial data. First is the relative newness of the world-economy paradigm within the American social sciences.[6] Second, the complexity of relationships which have led to the development of an international division of labor makes the selection of indicators adequate to trace the causes and outcomes of this division troublesome. Third is a problem to which I will direct the latter part of my comments: the vicissitudes of obtaining data appropriate to empirical research on the historical role of cross-national labor migrations.

LABOR MIGRATIONS: PARADIGMS FOR UNDERSTANDING

It was only in 1976 that the American Sociological Association (ASA) accorded institutional legitimacy to the world-economy paradigm within the discipline by formally initiating the establishment of a specific section to consider the nature of economic and political events which have contributed to the development of the modern world-system. This alone stimulated new studies and debates concerned with the process of class formation, the nature and relations of the productive process, and the wider links which join the different areas of the world and the states within these areas. Prior to this, within the ASA, as well as within most of the U.S. social scientific communities, modernization or development theory had dominated the arguments over the origins and development of contemporary society.[7]

Arguing that all societies are presently located at various stages or levels of modernization or development, the main intellectual task of the modernization theorists was to identify the series of steps or stages by which nations or societies would pass from the conditions of underdevelopment to the state of modern society. Migration, they argued, was set in motion by a group of push-pull factors corresponding to varying stages on a traditional-modern continuum which drew population from lesser developed areas toward the modern sector. The reciprocity between migration and urbanization was emphasized, and the movement of migrants or immigrants, as the case may be, was thought to be from agro-economies to the lower strata of the urban industrial sector where their assimilation and adaptation to advanced or modern society could then be initiated.

A linear bi-polarity was the distinctive feature of this movement between dual societies.

Subsequently, during the late 1960s and early 1970s, dependency theory, or, as Andre Gunder Frank has labeled it, "the development of underdevelopment," seemed to challenge the notion of dual societies. The low rates of economic growth, and the poverty of the majority of the populations of the lesser developed countries was explained as a consequence of their spatial-economic penetration by the capital and political power of the metropolitan economies, which, as a result, obtained advantages that further contributed to their own accelerated development. A kind of duality was proposed in which migrants were driven from regions of high unemployment and low economic growth produced by the steady draining off of their wealth, to the advanced capitalist regions or nations which had perpetrated this very situation. Dependency theory permitted a more accurate analysis of the way in which material and human resources of the periphery were exploited by the core. Yet it seemed too static to explain phenomena such as return migration; the abandonment, through out-migration, of geo-occupations, only to have them subsequently taken up by persons migrating in from areas of greater poverty or unemployment; or the general and cyclical historical sweeps made by mass migrations during various epochs. The polarity of the dependency model did not allow for a complex understanding of the intricacies of large-scale labor moves, and thus the need for a more systematic explanation of the origin and persistence of unequal labor exchanges among nations remained.

Several studies aimed at a reconceptualization of thought on the growth of the modern world system seem directly or indirectly pertinent here. Chief among these are a set of works by non-U.S. scholars which have dealt with the process of combined-and-uneven development;[8] patterns of cumulative and circular causation;[9] and unequal exchange.[10] While the usefulness of these works for our purposes lies primarily in their theoretical insights, another body of writing, stimulated by the experiences of the post-War II immigration of workers to Western Europe, provides us with some useful models for empirical research. Studies by Suzanne Paine, Adriana Marshall, Roger Böhnig, and Abadan-Unat, plus the exhaustive compilation by Kosack and Castles are especially helpful insofar as they direct us to examine relational networks between labor exporting and labor importing zones, and examine the labor market aspects functioning among states.[11]

Perhaps one of the most influential recent contributions within the U.S. social sciences has been Immanuel Wallerstein's work, *The Modern World System*.[12] Wallerstein has attempted to demonstrate the development of a single world system of production unified by an international division of labor. During various historical periods, participants in this division can be assigned to one of three categories: core, semi-periphery, and periphery, which correspond to differing strengths of state organization, class structures, occupational differentiation, and modes of labor control, and different and unequal profits derived from the functioning of the world economy. For migration studies, the usefulness of the Wallerstein approach lies in his depiction of an historical interdependent grid of capital, commodity and labor exchanges which is constantly changing as the expansion of the whole proceeds on the basis of disharmonious rates of growth among (and within) regional aggregates. Within the organization of a capitalist world economy, groups compete against one another to maximize their own economic strength, and therefore, attempt to distort the world market to their own benefit. Within this market competition we would also include efforts to maximize the benefits of a world labor market. Much of this struggle occurs as states seek to influence one another in a global contest in which some are more powerful than others but in which no one controls the world market in its entirety.[13] Not only economic differentiation and specialization produce variations in the strength of state apparatuses, however. Geographic and ecological factors also serve as barriers or benefits to be manipulated or circumvented.

While state-machineries may influence the movement of capitalist exchanges, they will not deter its development. The creation of national boundaries within a capitalist world economy has not prevented the process of capital accumulation from proceeding on a world level, and more often has facilitated the strengthening of states in the core as a counterpart to the weakening of the states in the periphery.[14] Just as there are differences in the scale, strength and needs of capital sectors in the core, so is there a more complex range of occupational tasks. Historical dependence of peripheral economies on less rationalized monocultures or primary production has produced a relatively limited variety of occupational specializations. Labor tends to be concentrated in lower skill-specialization ranges, and correspondingly, the remuneration of real and social wages is lower. This aspect of the international division of labor is a feature of the international capitalist system, and is the nascence of the network of cross-national labor migrations.

LABOR FLOWS WITHIN THE MODERN WORLD-SYSTEM

Constraints imposed by national boundary definitions govern the movement of surplus labor among nations. Among the stronger core states, the use of imported workers has allowed capital to extend its labor market far beyond legal-national boundaries into poorer and weaker national units. To the degree that international capital is able to move with flexibility among nations, seeking the most profitable locations for natural resources, markets and labor supplies, while labor

labor remains governed by state boundaries and policies, a major advantage is derived by capital. Strategies in response to the existence and definition of national boundaries thus vary in each instance for both capital and labor, as well as for periphery and core. In the case of labor import, national boundaries have traditionally been employed by core states to regulate the quality and quantity of alien labor, usually with scant interference from the governments of those states exporting labor.

International labor must in turn develop defensive tactics for dealing with the particular form boundary legislation takes at different moments. The way in which migrant labor strategies interact with state policies depends on whether these policies have been designed to facilitate the easy movement of labor across national boundaries, or whether they were intended to deter entry. When demand for imported foreign labor is high within the core, state boundaries are defined as flexible and relatively open to penetration. Labor flows move with relative ease across core boundaries. On the other hand, legal closure or boundary restrictions necessitate that cross-national labor devise extra-legal methods for penetrating these barriers. The greater the motivation to move out of the periphery, and/or the greater the desirability of jobs avaiable in the core, the more desperate or innovative will be the devices used by workers to penetrate restrictive national boundaries.

Conversely, core capital has access to a variety of legal, formal and official networks which it can manipulate in transgressing national boundaries within the periphery. For international labor there is no comparable network. Nor is there an international labor movement or organization which could formulate policies to protect the interests of an international workforce. With the exception of occasional assistance from political groups sympathetic to its plight, this sector of labor is left to improvise on its own. In effect, this increases their susceptibility to being exploited; their needs and their vulnerability subject them to abuse at the work place and manipulation in the political sphere. At the present moment, this is the dilemma facing many of those seeking to immigrate in order to work within the United States.[15]

Exchange mechanisms bind the peripheral population to events and decisions in the core. Inter-state movements of labor represent an exchange: (a) generated in part by the influence of political and economic institutions of the stronger core states over the weaker peripheral ones; (b) recruited by a wider variety of more highly remunerated employment; (c) regulated by state policies which define the conditions of boundary crossing; and (d) shaped by the cyclical rhythms and secular trends of the entire world economy. All of these influences fluctuate in form, content and degree over a period of time. Movements of labor from periphery to core at times accelerates, then may dwindle, and occasionally reverses. Direction and volume of the movement may not necessarily correspond to the presence of "push" factors in the periphery -- high unemployment and poverty, high birth rates, low economic growth, or agricultural or industrial stagnation. However, they do correlate, both positively and negatively, with the superordinate exchange mechanisms which unite core, semi-periphery and periphery into one economic system.

Two features of the modern world-economy ought to be reemphasized: first is the fact that no one state monopolizes power among nations, but many are in competition. The resulting pattern of unequal development creates the circumstances for the many geographic patterns of migration as well as the variation in movement by occupation. That is, immigration among nations tends to parallel the relations of unequal strength among nations. Second, the spatial shifting of core, semi-periphery and periphery zones and the geographic relocation of capital flows and poles of capital growth also explain the periodic variations in origins and destinations of migratory flows.

LABOR EXCHANGES, PERIPHERY-TO-CORE, WITH REFERENCE TO THE ENGLISH-SPEAKING CARIBBEAN

For the purpose of illustration, let us briefly discuss the history of population exchanges which has bound one peripheral region, the English-speaking Caribbean, to the world-system.

If the modernization proposition were correct, then the highest levels of out-migration ought to have occurred during periods of highest unemployment, and/or lowest rates of economic growth. Such has not been the case. Neither general migration patterns, nor specific cyclical movements have consistently coincided with internal growth rates. High rates of out-migration characterized the late post-World War II period until 1962, although this was also one of the most rapid economic growth periods within the region.[16] On the other hand, during the 1930s, a time of economic stagnation and extensive poverty and unemployment, emigration not only ceased, but return migration and immigration predominated.[17] Secondly, out-migration presumably ought to generate some reduction in levels of unemployment, if the modernization argument holds. This has not necessarily followed, because migration has drawn selectively from among those who are already employed (or whose skill training would have ensured their employment had they not elected to emigrate). Those who are in fact unemployed, frequently lack the precise skills, training or education to fill available job slots which have been vacated by emigrants. In fact, one side effect of out-migration which often occurs is the simultaneous existence of specific labor shortages alongside general labor surpluses.[18] One response to specific labor shortages by the stronger economies of the "big islands" has been to simultaneously encourage immigration to fill these vacancies from the "smaller islands," or with technical-professional workers from the core.

Nor does the reduction of population through emigration necessarily reduce pressures and demands on welfare services thereby raising the quality and quantity available to the national population. On the contrary, where migration draws off professionals and persons with special skills, as has been the case with health care professionals from Trinidad, Barbados and Jamaica, the result has been a deterioration of standards and reduction of availability of certain services.

Finally, modernization explanations assume that those who leave will achieve a degree of upward mobility as a consequence of immigration. The tendency toward assimilation and mobility is cyclical, however. Flows of return migration, especially during periods of capital contraction in the core, or within the world economy, draw back those who otherwise would probably experience equal or even greater unemployment and misery were they to remain in the metropole.[19] Those who have remained abroad when specific capital expansion projects for which they had been recruited have been completed, often become an excluded, displaced or super-exploited minority within the labor importing society. The fate of West Indian workers originally imported to construct the Panama Canal and who remained in Panama after the completion of the project is a case in point.[20] Offspring of immigrant workers are not necessarily guaranteed any degree of of social mobility, and in some instances cannot expect to achieve even the same level of social and economic stability as their immigrant parents if they enter the labor market during periods of low demand. High unemployment rates in the United Kingdom among West Indian youth whose parents immigrated during the 1950s and 1960s offer an example of the potential trends when labor market forces, especially those involving race and market stratification, combine with contractions of the economic cycle. Journalistic accounts reported in the *Jamaica Weekly Gleaner* indicate that for the eighteen-month period up to May 1975, unemployment in England rose 65 percent for the general population, 156 percent for minorities and 182 percent for young West Indians.[21] Based on news items, it is not unlikely that trends for U.S.-Caribbean immigrant offspring might be similar in the period since 1974.

When measured against descriptive evidence, similar flaws and inadequacies are revealed in the framework of dependency theory. If it were to hold, we ought not to observe a rise in economic growth occurring as a correlate of intensification of foreign capital penetration combined with removal of national resources, but rather should expect increased poverty and social dislocation. However, islands with bauxite deposits experienced no appreciable rise in unemployment and poverty indices during the post-World War II period of foreign capital penetration in that sector. Nor on the other hand did they fall. In any case, foreign domination of the economy did not seem to be the stimulus to have set in motion the major out-migration of the 1950s. Britain's urgent need to locate additional labor supplies stimulated this exchange.

During the same period as the heavy out-migration of the 1950s and 1960s, expansion of the industrial sector and increase of output per worker did in fact take place within the Caribbean, just as it did within the periphery in general. However, it did not generate labor demands adequate to absorb the large labor surpluses. Invitations to foreign capital by local governments accounted for most of this expansion. "Screwdriver" or assembly plants predominated, and production was based primarily on capital intensive techniques characteristic of production within the core. Thus the rise in industrial output did little in the way of creating jobs or offsetting the proportion of economically inactive population.[22] The tendency was to rely on a limited and skilled labor force. When labor costs began to rise, where, for example, labor became more organized, or where wage scales began to move toward an approximation of core wages, these same industries tended to withdraw in search of lower labor costs, thereby leaving an "urban-industrial" labor force without an industrial base.

We have noted that every economy is a component of a global system, and that the inequalities contained therein tend to maintain the general trend of capital accumulation on a world scale. Internal social and economic inequalities all have an international dimension for the various societies. Only if it were possible to isolate states as autonomous national units could we rely on aggregate national statistics to understand large-scale movements. There is a danger in generalizing on time-specific or geo-specific characteristics of migration, only to be proven wrong by subsequent events. If the historical facts of regional migrations are laid out over time, our search for consistently repeated patterns or discernable causal networks will be made more efficient.

Population, commodities, and capital transfers, plus the evolving set of boundary regulations established through immigration legislation (the majority of such legislation being created by, and in the interests of, the core), form the links of a geo-economic division of labor. A variety of factors influence this division: the dominant characteristics of the period in which the areas were incorporated into the world economy, and the distribution of strength within the world market at that moment; the types of natural and human resources located in the different geographical regions; the internal class structure which emerged within the area; the degree of success by labor in establishing real and social wage levels through class organizations in various zones; and finally, the additive effects of geo-political and economic advantages which continue to accumulate as a result of shifting strengths and inequalities between periphery and core.[23]

INDICES OF UNEQUAL EXCHANGE

Selection of indices with which to illustrate or test these theoretical arguments about the impact of immigration within a world economy proceeds afresh, and there are differences of opinion over whether a new development paradigm also requires a new methodology. The intellectual traditions and techniques of the *Annales* school developed by Marc Block, Lucien Febvre and Fernand Braudel have been influential, and the investigations of social historians such as E. H. Carr, Geoffrey Barraclough and Eric Hobsbawm have also served as a guide. There is obviously no inherent virtue in seeking out new indicators merely because of their newness. On the other hand, the tendency has been to present an array of variables which verifies the existence of regional-national inequalities, but which alone does not explain the origin of such arrangements. A conglomeration of disequal Gross National Products (GNPs), employment rates, kilowat-hour consumption, health, education and welfare facilities, agricultural and industrial investments and outputs, birth rates, allocations for scientific and technological research, etc., confirms that which is already well known. But how do dipolar exchanges generate these results? Moreover, such statistics frequently conceal more than they reveal as, for example, with reliance on GNP which typically obscures real (mal)distribution of wealth, income and services within a country, and thus leaves us perplexed when we find nations such as Jamaica where rising GNPs and rising unemployment rates co-vary. These variables need not be abandoned altogether, but they will have more utility for our purposes if placed in a long-term, large-scale perspective in order to illustrate historical change.

The relationship between cross-national migrations and the global trends toward "peripheralization" and "coreness" are complex. They constitute only one process among a variety of exchanges which have contributed to the development of the modern world. A network of backward and forward linkages can be patterned among the multiplicity of participants within the world market. While paying particular attention to population exchanges, note must also be made of the commodity and capital flows and the differential loss or benefit chains which correlate. Interactions and trends over a relatively long historical period show secular patterns; short-term exchanges indicate cyclical influences.[24]

As a point of departure, then, let us begin with the working hypothesis that a global labor market has been integral to the development of the modern world economy. The participants are those who sell their labor power as a commodity, and those who purchase that commodity. The market operates across national boundaries, and it is formally regulated by state jurisdictions which define the functions performed by boundaries in terms of who and what, and under what circumstances, shall be permitted to cross the lines which divide states. The trend toward equalization of wages sets in motion and maintains the movement within the market, and constitutes the dynamics of the network of labor exchanges. The strength or weakness of migration rhythms are determined by persistent pressures generally associated with peripheral societies; by cyclical expansion and contraction of the process of capital accumulation both on a world scale and within specific nations; and by specific historical or sectoral events or developments. The system operates worldwide, but the actual exchanges are spatially and geographically defined and restricted by proximity, technology and communication, and competition and collusion among states.

II

At this point, our concern is with building substantive knowledge -- the gathering, sifting, coordinating and ordering of empirical facts -- and then relating this evidence to other patterns in the ongoing development of the modern world. We must be cautious about maintaining unity between our theory about the form and process of development, and the data presented as evidence. Because of the paucity of thought about the cumulative roles of labor migrations, proof will remain tentative and conclusions speculative. This is not, of course, a methodology, nor does it vary much from the traditional logic of proceeding in scientific investigation. It is only a set of suggested techniques on how to proceed.

Identification of a series of indicators which contain explanatory power appears titanic when taken in its intirety, but it is not difficult to imagine a manageable set of variables which contain some explanatory power. A parsimonious listing might consider the interaction among capital flows between core and periphery, corresponding contrary paths of commodities exports and out-migration to the core; changing statuses of individual occupations and industrial locations through immigration; downward or upward movement in class ranking as a result of immigration; differential dependency ratios among societies affected by population movements; talent and training losses or gains; amounts and dispersal of remittances from core to periphery; movement patterns which co-vary with economic cycles within individual states and within the world economy; state boundary regulations as they impact on movement; differential population exchanges (e.g., semi-skilled workers and professionals vs. managers and tourists); and inter-generational migratory patterns and experiences.

DATA SOURCES

Here the world-system approach is particularly vulnerable because of its newness and complexity. While observing that quantitative history presupposes the existence and elaboration of long series of homogenous and comparable data, Furet also notes that the first problem which presents itself in new terms is that of sources.[25] The cumulative process of constructing a body of scientific knowledge must seek out sources with inventiveness, for "It is not the sources which determine the approach, but the approach which determines the sources."[25] We begin with time series data where possible, and use illustrative statistics and historical narrative based on case studies to reconstruct patterns where necessary.

Use of historical time series data poses the problem of whether the data are generalizable over historical periods. Are the indicators for which information is available comparable from one period to another, or can they be standardized to compensate for variations or gaps in such a way as to make them standard? Running records such as those maintained by contract labor recruiters, employment records or annual financial reports of individual firms or enterprises, parish records and police records yield serial information for the past. Ironically, it may be that obtaining representative data for current population flows is more problematic than for the past, especially where politico-administrative records maintained by individual states are concerned. Many useful records and documents maintained by the U.S. National Archives are closed to researchers for dates more recent than seventy-five years. For example, the manuscript schedules of the U.S. Census are only available before 1880, the 1880 records having been destroyed by fire, and the 1900 and subsequent records not yet being open.[27]

Government data sources: U.S. immigration researchers tend to rely heavily on government data sources. Perhaps no sets of data are so available and yet so inadequate for our purposes as the statistics published by the Immigration and Naturalization Service, the Census Bureau, and the Department of Labor. It is not that crucial information is not collected, but rather that it is frequently never tabulated, because the publishing agency selects out only those variables which are useful for its own operations. Original records from which tabulated data are derived are often rich with information which is not open to examination. Moreover, in some instances, original data are actually discarded, leaving no record of the declarations they contained. Aggregate government data, originally drawn from individual documents and statements, are reduced to gross categories, and thereby lose important information and much of the explanatory power offered by the unrefined documents. The (in)ability to establish individual and intergenerational migratory patterns, or longitudinal tracing of work, occupational and aspirational profiles from aggregate U.S. government data is a case in point. For permanent legal immigrants, at least, this information and more could be made available by the government from consular archives if the government elected to do so.

With regard to the new immigration to the United States, there are other data which the government could easily collect. Perhaps the most useful would be statistics on the emigration of alien immigrants, since this would establish rates and rhythms of return and multiple migration which could then be measured against a backdrop of various cyclical patterns.[28]

Another time series source for contemporary immigration is massive longitudinal surveys. Among recent studies of this sort, one of the more widely cited is the project carried out by David North and Marion Houstoun under funding from the Department of Labor.[29] Phases One and Two of the project were based on a sample of five thousand immigrants admitted to the United States during fiscal year 1970. Data were taken from at least one of three sources: the Immigrant Visa and Alien Registration Card, the Application for Immigrant Visa and Alien Registration, and the Memorandum of Creation of Record of Lawful Permanent Residence. Subsequently, interviews with 115 immigrants and 201 employers of immigrants were generated from the original sample. Drawing on this data base, projects are being developed on work trends among non-immigrant aliens, and a longitudinal study of immigrants in the labor force. For the latter, a subsample of one thousand of the original cohort of five thousand are being interviewed to determine the nature of their labor market participation over time. Some refutations of North's interpretations have appeared, but a large cohort data base such as this is of unquestionable value, especially because it shares common properties with earlier immigrant cohorts for which data are available (i.e., flows from Europe to the U.S., or from the Caribbean to the U.K. and the U.S.).

Illustrative Statistics: In the initial project of isolating and patterning long-term labor movements within designated dimensions, statistics establishing central tendency are adequate. For example, a comparison of the distribution of average wage levels between the labor exporting region and labor importing regions would permit generalizations about the tendency toward wage equalization. Values must be established for wage levels in each instance, and these then can be compared across time. Wage levels or thresholds must necessarily be established from illustrative statistics of central tendency taken from those labor markets or sections of the market in which immigrants participate potentially, or in fact, before and after movement.

Another project involves the tracing of the process of class formation wherein the creation of surplus population, ready and able to immigrate originates. This could be done by monitoring patterns of land tenure and utilization. Statistics revealing increasing average size of holdings and decreasing numbers of owners, over time, mean increasing displacement of families from land ownership. Similarly, statistics which reveal a pattern of removal of estates from cultivation, but retention of titles under prior ownership, indicate an increase in agricultural unemployment. In both instances, these processes generate a surplus population within the Caribbean from which immigrants have at times been drawn. The statistics -- simple cross tabulations and measures of central tendency -- provide elements of an historical process. Thus descriptive statistics, rather than inductive statistics, serve to outline basic dimensions in much the same way as historical narrative can be constructed from individual case studies.

Case Studies, Small Sample and Anecdotal Accounts: Assembled bits and pieces of social history drawn from a variety of non-numerical sources can provide the equivalent of serial data, though not necessarily in quantifiable form. I would argue that no type of fact or information ought to be denied so long as it serves to sharpen the connections of development rhythms and trends. Few world system scholars are striving for complete quantification of history, and most would probably accept the borrowed advice offered by E. H. Carr that scientific advancements are often achieved when the researcher, while "rummaging in the ragbag of observed facts, selects, pieces, and patterns the *relevant* observed facts together, rejecting the *irrelevant* until he has sewn together a logical and rational quilt of knowledge."[30] The ever present dangers of subjective selectivity must simply be guarded against.

What many small sample, anecdotal studies lack in quantitative historical statistics, they compensate for in elaboration and thoroughness. For example, then the economic dynamism of recent immigration to the U.S. could be neatly spliced onto the rhythms established for earlier periods if only we had access to the rich data base contained in the set of documents submitted to U.S. consular officials by would-be immigrants initiating the formal process of immigration while in their countries of origin, or to the declarations made to Immigration and Nationalization Service offices at the point of entry. Confidentiality of these records imposed by the state precludes this possibility. Can this dimension be replicated otherwise? Others have already done much of the exciting work for us, leaving to us the less glamorous task of collation and serialization. Take for example, the research of Elsa Chaney among the NYC Colombian community, and that of her co-investigator, CarmenInéz Cruz, working in Colombia.[31] Their study fills several needs since it takes place within sending and receiving countries, and it contains declarations from which we can reconstruct geographical, occupational and demographic patterns, kin networks, levels of income, marital and dependency ratios, and return migration patterns. The micro-level study of Glenn Hendricks of Dominicans moving to the U.S. shares many of the same virtues.[32] Thus for the researcher interested in the large Central American and Caribbean immigrant population residing in the greater New York City area, Chaney, a political scientist, and Hendricks, an anthropologist, offer us confessions and insights of individuals from which broader processes and relationships can be interpolated.

A good data base for outlining broad and complex patterns is difficult to establish. Long-term historical series are usually scarce. Historical records are apt to include different population variables or fragmented information, allowing a potentially inaccurate reconstruction of indicators of trends. Experimentation with quantification or serialization of the dialectics of complex interactions between labor sending and labor receiving areas is relatively untracked land, and obviously tracking would proceed more easily if we had access to all the relevant historical facts. But the wisdom of Lucien Febvre offers encouragement: "Where we lack demographic statistics, or indeed any statistics whatsoever, shall we resign ourselves to the situation? But being an historian means never resigning oneself. It implies trying everything, testing out anything that might possibly fill in the gaps in our information. It means exercising one's ingenuity, that is the word. Making mistakes, or, one might say, plunging enthusiastically a dozen or more times along ways that are full of promise only to discover that they do not lead to the place you want to go. Never mind, we begin again. We patiently pick up the loom again with all the broken bits of thread tangled up and scattered about."[33]

FOOTNOTES

[1] Francois Furet, "Quantitative History, in Felix Gilbert and Stephen Graubard (eds.), *Historical Studies Today*. New York: Norton and Co., 1971, p. 45.

[2] *Ibid.*, p. 47.

[3] Geoffrey Barraclough, *An Introduction to Contemporary History*. Middlesex: C. A. Watts, 1965, p. 9.

[4] *Ibid.*, p. 10.

[5] For example, see the following recent studies: W. R. Böhning, *The Migration of Workers in the United Kingdom and the European Community*. London: Oxford University Press, 1972; Manuel Castells, "Immigrant Workers and Class Struggle in Late Capitalism," *Politics and Society*, vol. 5, no. 1, 1975; Stephen Castles and Godula Kosack, *Immigrant Workers and Class Structure in Western Europe*. London: Oxford University Press, 1973; Adriana Marshall, *The Import of Labour: The Case of the Netherlands*. Rotterdam: Rotterdam University Press, 1973; Marios Nikolinakos, "Notes Toward a General Theory of Migration in Late Capitalism," *Race and Class*, vol. 17, no. 1, 1975; and Suzanne Paine, *Exporting Workers: The Turkish Case*. Cambridge: Cambridge University Press, 1974.

[6] For an elaboration on the development of the world-system perspective see, for example, Editorial Board of the Fernand Braudel Center, "The Contribution of the *Annales* School on the Social Sciences," *Review*, 1:3/4 (Winter, 1977/Spring, 1978).

[7] For a comparison of these paradigms, see Alejandro Portes, "Migration and Underdevelopment." Duke University, Department of Sociology, 1977 (mimeo.).

[8] Samir Amin, *Unequal Development*. New York: Monthly Review Press, 1976.

[9] G. Myrdal, *Economic Theory and Underdeveloped Regions*. London: G. Duckworth and Co., 1957.

[10] Arghiri Emmanuel, *Unequal Exchange*. New York: Monthly Review Press, 1972.

[11] Paine, *op. cit.*; Marshall, *op. cit.*; Böhning, *op. cit.*' Nermin Abadan-Unat *et al.*, *Migration and Development*. Ankara: Ajans-Türk Press, 1975.

[12] Immanuel Wallerstein, *The Modern World System*. New York: Academic Press, 1974.

[13] Immanuel Wallerstein, "The Rise and Future Demise of the World Capitalist System: Concepts for Comparative

Analysis," *Comparative Studies in Society and History*, vol. 16, no. 4, 1974.

[14] *Ibid.*

[15] Tactics currently employed by workers of the periphery -- variations of legal fraud or falsification -- in attempting to circumvent or evade the legal-national obstacles to desired employment, may be considered an outgrowth of an intra-capital conflict in which labor has been forced to innovate in order to reach their job destinations. We refer here to the controversy over enactment of new restrictive legislation. While representatives of some sectors of capital are lobbying for increasing closure, other sectors continue to attract foreign workers with the offer of jobs they are unable to fill with indigenous workers, given the wages, conditions and restrictions attached.

[16] For documented evidence of this relationship, see Gisela Eisner, *Jamaica, 1830-1930: A Study in Economic Growth.* Manchester: University of Manchester Press, 1961; R. B. Davison, *West Indian Migrants.* London: Oxford University Press, 1961; and Ceri Peach, *West Indian Migration to Britain: A social Geography.* London: Oxford University Press, 1968.

[17] George Roberts, *The Population of Jamaica.* Cambridge: Cambridge University Press, 1957.

[18] G. W. Roberts and D. O. Mills, "Report: Study of External Migration Affecting Jamaica, 1953-5." Supplement to *Social and Economic Studies*, vol. 7, no. 2, 1958.

[19] Castells and Kosack, *op. cit.*, pp. 87-93.

[20] See three articles by Roy S. Bryce-Laporte: "Crises, Contraculture and Religion among West Indians in the Panama Canal Zone," in Norman E. Whitten, Jr., and John F. Szwed (eds.) *Afro-American Anthology.* New York: Free Press, 1970; "Varias ideas sobre el significado de la experiencia del grupo de origen afro-antillano de Panama para los estuchios afro-americanos," in Actas del IV Simposium Nacional de Antropologia, Arqueologia y Etnohistoria de Panama. Panama: Universidad de Panama, Octubre 1973; and "The United States' Role in Caribbean Migration: Background to the Problem," in Roy S. Bryce-Laporte and Delores M. Mortimer (eds.), *Caribbean Immigration to the United States.* RIIES Occasional Papers No. 1. Washington, D.C.: Smithsonian Institution (Research Institute on Immigration and Ethnic Studies), 1976.

[21] *The Jamaica Weekly Gleaner* (February 27, 1978).

[22] To illustrate, in Jamaica, incentive legislation attracted an investment of (J) $58.2 million by 179 enterprises. In the twelve years between 1956 and 1968, the Jamaican labor force grew at a rate of about twenty-five thousand annually during the same period. (Owen Jefferson, *The Post-War Economic Development of Jamaica.* Kingston, Jamaica: ISER, University of the West Indies, 1972, p. 141.) Similarly, new plants in Trinidad hired only eleven thousand during the 1960-68 period, whereas the labor force increased by two hundred thousand. (David Lowanthal, *West Indian Societies.* New York: Oxford University Press, 1972, p. 241.)

[23] For a discussion of Jamaican labor migrations from a world system's perspective, see my research note in *West Indian Labor Migration to Latin America: Historical and Sociological Perspectives.* RIIES Occasional Papers No. 2. Washington, D.C.: Smithsonian Institution (Research Institute on Immigration and Ethnic Studies), forthcoming 1979.

[24] See Research Working Group on Cyclical Rhythms and Secular Trends, "Cycles and Trends of the Modern World System," *Review*, vol. 2, no. 4 (Spring 1979).

[25] Furet, *op. cit.*, p. 48.

[26] *Ibid.*, p. 51.

[27] Stephen Thernstrom, "Reflections on the New Urban History," in Felix Gilbert and Stephen Graubard (eds.) *Historical Studies Today.* New York: Norton and Company, 1971, p. 326.

[28] Although estimates on this movement have been made employing 1960 and 1970 census data, no statistics on the number of alien residents who leave permanently have been collected since 1957. (Robert Warren, "Recent Immigration and Current Data Collection," *Monthly Labor Review* vol. 100 no. 10, 1977, pp. 40-41.)

[29] David North and Marion F. Houstoun, *The Characteristics and Role of Illegal Aliens in the U.S. Labor Market.* Washington, D.C.: Linton and Co., 1976.

[30] E. H. Carr, *What Is History?* New York: Vintage Books, 1961, p. 136.

[31] CarmenInés Cruz and Juanita Castaño, "Colombian Migration to the United States (Part 1)," and Elsa M. Chaney, "Colombian Migration to the United States (Part 2)," in *The Dynamics of Migration: International Migration.* Occasional Monograph Series, no. 5, vol. 2. Washington, D.C.: Smithsonian Institution (Interdisciplinary Communications Program), 1976, pp. 41-141.

[32] Glenn L. Hendricks, *The Dominican Diaspora.* New York: Columbia University Press, 1974.

[33] Febvre, *op. cit.*, p. 34.

PART II

DATA AVAILABILITY AND SPECIFIC USES

SOME DATA AND METHODOLOGICAL ISSUES REGARDING RESEARCH ON THE ECONOMIC PROGRESS OF IMMIGRANTS

Barry R. Chiswick

INTRODUCTION

Recently there has been renewed public interest in the social and economic progress of immigrants to the United States, and the impact of this immigration on the native (resident) population. Although there is intensive newspaper coverage when there is a sudden influx of immigrants from a particular country, and although there has been substantial discussion of the issues by social commentators and policy makers, there has been relatively little research in recent decades on the earnings, occupations and impact of immigrants to the United States.[1] After a long hiatus, empirical research on these issues appears to have resumed. This research has the potential for making an important input into the formation of immigration policy, the development of effective remedial measures to mitigate the losses of the segments of the native population hurt by immigration, and more effectively assisting immigrant groups that have difficulty adjusting to the United States.[2]

This paper is concerned with a narrower set of issues. It discusses some of the data and methodological problems that arise in an analysis of the social and economic progress of immigrants. It is based on a major research project in progress on the earnings, occupations and impact of immigrants to the United States.[3] Although the focus is on the earnings and occupations of adult white male immigrants to the United States, the issues discussed are relevant for other indices of social and economic progress, for non-whites as well as for whites, for women as well as for men, and for the study of immigrants to countries other than the United States.

DATA

The first step in an empirical analysis of the earnings or occupations of immigrants (foreign born persons) is the identification of a relevant data set. According to the 1970 Census of Population only 5 percent of the U.S. population, or one out of twenty persons, is foreign born.[4]

Sampling and the Foreign Born

Stratified sampling can be an economical means of obtaining data to compare a small and a large population. If it were costless to differentiate foreign born from native born persons the former could be "over-sampled," and the pooled or combined data could be analyzed, using prior information on the relative proportion of foreign born and native born persons in the population (i.e., the sampling fraction for each group). Then, a one-in-a-thousand sample of the foreign born and one-in-a-twenty thousand sample of the native born would result in two samples each with approximately two thousand observations for adult men. This is not feasible, however, as there is no simple or inexpensive mechanism for identifying the foreign born prior to their being interviewed. The foreign born do not live exclusively in particular geographic areas, their surnames are not unique and they do not register their status and address with any governmental agency.

While all resident aliens are required to file their address each January with the Immigration and Naturalization Service, these address records are inadequate for a sample of the foreign born. Only resident aliens are required to complete the form, but according to the 1970 Census of Population, two-thirds of the foreign born living in the United States are naturalized citizens.[5] And, the tendency for an alien to become a citizen may not be independent of the other characteristics in which a researcher is interested. Also, not all resident aliens file the form, and it is likely that the proportion of aliens in a cohort who do file the form declines the longer the cohort is in the United States. Although the alien address form is of limited usefulness as a source of names and addresses for the foreign born, it could be more effectively utilized than at present for studies of resident aliens.

To obtain a simple random sample of the population that will include, say two thousand foreign born adult men, requires a sample of about forty thousand adult men. This is the equivalent of approximately a one-in-a-thousand sample of the population, or a sample somewhat larger than the monthly Current Population Survey (47,000 households) conducted by the Bureau of the Census. Yet, if one were interested in Black or East Asian immigrants (0.1 percent and 0.3 percent, respectively, of the population in 1970)[6] or immigrants from a particular country, even a one-in-a-thousand sample of the population is likely to be too small for statistically reliable estimates for most micro-data (individual observation) studies.

A longitudinal sample, one that follows a cohort over time, may be the most useful means of tracking the progress of a cohort of immigrants. However, because longitudinal data sets are expensive to initiate and maintain, they tend to be of relatively small size. As a result, although the samples are sufficiently large for many research questions, the number of foreign born persons in the data is generally too small for reliable statistical results. For example, the panel on adult men in the National Longitudinal Survey (Parnes Sample) includes only 267 men born in a foreign country. The University of Michigan Income Dynamics Panel includes only seventy-one adult male household heads who "grew up" in a foreign country and who had earnings in each of the four survey years. Neither sample includes information on when the person came to the United States or the specific country of origin.

The Census of the Population

The decennial Censuses of Population may be one of the most useful data sources for analyses of the characteristics of the foreign born.[7] The Census of 1850 was the first to ask place of birth, and hence provides the earliest data on the number of foreign born persons in the U.S.[8] Place of birth has been on each census since then. The year of immigration for the foreign born was asked in each of the censuses from 1890 to 1930, and then again in 1970 on the 5 percent sample questionnaire. Parents' country of birth has been asked since 1870. Although census data on the occupations of the foreign born exist since 1870, income has been asked only since the 1940 Census.[9]

The number of years an immigrant has been in the U.S. appears to be an important determinant of his earning (or income) and occupational status. For example, it will be shown below that excluding information on the number of years the foreign born have been in the United States can result in grossly misleading conclusions concerning their earnings. Thus, the 1970 Census, 5 percent sample questionnaire, which includes information on specific country of birth, year of immigration and citizenship, among other variables, is an important data source on immigrants.

Data from the 5 percent questionnaire may also be the most useful source of longitudinal information on the economic progress of immigrants. The respondents were asked their occupation, industry and class of worker for both 1965 and 1970. Thus, using retrospective reporting of occupation, the progress of immigrants can be followed over a five year period and can be related to country of origin and year of immigration, among other variables.

The 15 percent sample questionnaire of the 1970 Census did not include questions on year of immigration or citizenship. It did include country of birth, mother tongue (language other than or in addition to English spoken in the home when the person was a child), whether the mother and father were born in the United States and the parents' country of birth (the father's country of birth if he was foreign born, otherwise it is the mother's country of birth).

Thus, while the 5 percent questionnaire is well suited for a study of immigrants, the 15 percent questionnaire is well suited for a study of the children of immigrants. The questions in the 1970 Census, 5 percent and 15 percent questionnaires that are of special relevance for a study of immigrants and their children are reproduced in Table 1. Public Use Sample data tapes for both questionnaires have been made available by the Bureau of the Census.

Using the 1970 Census of Population, it is not possible to identify ethnic groups defined by religion directly, as there is no question on religion.[10] Thus, although persons of Irish birth or parentage can be identified, Irish Protestants cannot be differentiated from Irish Catholics. And, Jews cannot be differentiated from gentiles from the same country of origin.[11]

Even aside from the issue of religion, there is only a limited capability for ascertaining the ethnic origin of native born persons with native born parents. Persons of Asian or American Indian ancestry can be identified by the question on race.[12] Persons of Spanish heritage can be identified, with greater error, by the question on Spanish origin (5 percent questionnaire)[13] and, for the five southwestern states by the coding of a Spanish surname variable (5 percent and 15 percent questionnaires).[14] Among other native parentage whites and Blacks, however, it appears that ethnicity within the race group can be identified in the 1970 Census only through "mother tongue" (15 percent questionnaire).

A person is classified as having a non-English mother tongue if a language other than or in addition to English was spoken in the home when the person was a child. This is a quite imperfect index of ethnic origin, however, as ethnic identities can be retained even if English is the only language spoken in the home. And the gradual loss of non-English languages may not be random with respect to the researcher's measures of social and economic progress or with respect to the integration of an ethnic group. Even if a person's mother tongue is known, ethnicity may be difficult to identify. For example, French speaking whites may come from France, Quebec, or North Africa, among other places, while French speaking Blacks may come from the former French colonies in West Africa or the Caribbean.

The Survey of Income and Education

The recent Survey of Income and Education (SIE) is another potentially useful data source. The SIE was taken by the Bureau of the Census in 1976 and reports income (1975) and occupation as well as country of birth and year of immigration, although data are not available for the parents' country of birth.[15] For a study of immigrants perhaps the most unique feature of the SIE is that it includes several detailed questions on the person's use of English and other languages. The sample consists of 160,000 households (about a one-in-three sample of the population) but the data were stratified by state -- the sample size is larger in the smaller states.[16] The questions that are of special relevance for a study of immigrants are reproduced in Table 2. A Public Use Sample data tape has recently been made available by the Bureau of the Census.

In the SIE respondents were asked to identify their ethnic origin. As there is no question on parents' country of birth, it is not possible to differentiate second from third generation Americans.[17] An ethnic origin question has the disadvantage of being subject to self-selection. A substantial proportion of respondents do not indicate a particular "non-American" origin and, as with mother tongue, this may not be random with respect to characteristics that are of relevance to a researcher. For example, the income of Polish-Americans would be underestimated if there is a systematic tendency for high income Polish-Americans to not report their ancestors' Polish origins.

YEARS SINCE MIGRATION AND COUNTRY OF ORIGIN

The social and economic characteristics of immigrants tend to vary with the number of years they have been in the U.S. and with their country of origin. This section discusses analyses of earnings and occupational mobility for which years since migration and country of origin are important explanatory variables.

Earnings

Recent immigrants are less likely than the native born to have characteristics that are favorably associated with earnings. They have less knowledge of the customs and language relevant to U.S. jobs, have less information about U.S. job opportunities, and they have been at their current job fewer years than native born workers. They are also less likely to have acquired the union card or occupational license relevant in the United States to apply the skills acquired in their country of origin. As time passes, the immigrant gains knowledge of the United States, acquires job specific training and either acquires the union card or modifies his skills accordingly. Thus, immigrants would initially have earnings significantly lower than native born men, but the gap would narrow as the immigrants' years in the United States increase. If immigrants have disproportionately high ability motivation their earnings could eventually exceed that of the native born men with similar measured characteristics. This would occur if the effect on earnings of their higher level of ability or work motivation eventually outweighed any remaining disadvantages of a foreign origin. Under this scenario, the number of years in the U.S. would be an important determinant of earnings.

In an analysis of the earnings in 1969 for white men age twenty-five to sixty-four, the foreign born had 1 percent lower earnings than the native born, but the difference was not statistically significant. To see whether the earnings of the foreign born and native born differed, controlling for differences in schooling and demographic factors, a regression equation was computed with the natural logarithm of earnings as the dependent variable and a set of explanatory variables, including a dichotomous foreign born variable which is equal to unity for foreign born men and equal to zero for native born men. The other variables include years of schooling, age, marital status, weeks worked and place of residence (urban/rural and South/Non-South). The coefficient of the foreign born variable indicates the percent difference in weekly earnings, other things equal, between native and foreign born men.

The analysis indicates the foreign born have 3 percent higher earnings, controlling for other variables, but the coefficient is just significant at the 8 percent level under a two-tailed test. Using conventional criteria, the coefficient is not statistically significant. From this one would conclude that there is no difference in earnings between the native and foreign born.

However, a very different picture emerges when the number of years since migration is included in the analysis. The set of foreign origin variables become highly significant.[18] This arises because, controlling for other variables, foreign born adult white men earn substantially less than native born adult white men during their first few years in the country. After they arrive their earnings rise more rapidly over time than for the native born, equalling that of the native born after ten to fifteen years, and thereafter the foreign born have higher earnings.[19] The rise in earnings with years in the U.S. is steeper for immigrants from non-English speaking countries than it is for those from English speaking countries.

Substantially misleading interpretations can be obtained from analyses of the progress of immigrants from particular countries if the variable "years since migration" is ignored. For example, in an analysis of the earnings in 1969 of adult white men living in urban Florida, other things the same, the Cuban born earned 27 percent less than men born in the United States, and the difference is highly significant. From this one might conclude that special efforts are needed to aid this disadvantaged immigrant group. However, in 1970 80 percent of the Cuban born men in Florida had been in the United States less than ten years. For those who had been in the United States ten to fifteen years, there was no significant difference in earnings (the Cuban born had an insignificant 6 percent earnings advantage). The data suggest that although the Cuban immigrants initially have very low earnings compared to native born men, after not too many years the earnings gap closes. To ignore this time dimension in their earnings is to ignore the substantial economic progress that the Cuban immigrants have made.

Another example of the importance of including years since migration is in an analysis of the effect of citizenship. For example, is there discrimination in earnings against foreign born men who are not citizens? Labor market discrimination is difficult to define and to measure. One imperfect procedure is to see if there is a difference in earnings, controlling for schooling and other relevant demographic variables. Controlling for several conventional variables (schooling, age, marital status and place of residence), there is a significant difference in earnings among adult foreign born men depending upon whether they are aliens or naturalized citizens. The earnings of aliens are lower by 15 percent. As citizenship takes time to acquire, however, the aliens had been in the United States for fewer years.[20] When years since migration is included in the analysis it is statistically significant, but the variable indicating whether a foreign born person is an alien is no longer significant. Other things the same, aliens earn less than naturalized citizens not because they are aliens, but because on the average they have been in the United States fewer year.

Occupation

The absence of complete international transferability of knowledge and skills also effects the occupational mobility of immigrants. Compared to their occupation in their home country, there would be a tendency toward employment in a lower status job during their first few years in the United States. They would then experience upward mobility as their knowledge of job opportunities, skills and credentials adjusts to the U.S. labor market.

This U-shaped pattern of occupational change can be expected to vary by country of origin. The initial decline and subsequent rise would be less intense for immigrants from countries similar to the United States, such as Canada and Britain. The U-shaped pattern would be most intense for refugees from non-English speaking countries. Refugees tend to be older than economic migrants, a greater proportion are in occupations for which there is little international transferability of skills (e.g., lawyers and judges) and, even within occupations, a smaller proportion anticipated or prepared for the move.

These hypotheses have been tested for adult white men with the longitudinal data on occupation in the 1970 Census of Population. Using mobility among the ten major occupational categories as the criteria, 38 percent of the immigrants in the United States for less than five years in 1970 were in a different occupation than when they were in their home country. By contrast, only 21 percent of native born (civilian) men and 21 percent of all foreign born men changed their occupation in the five year period. The occupational change among the recent immigrants was predominantly downward, with the immigrants from Cuba most likely and the immigrants from the English speaking countries least likely to change their occupation.

The occupational mobility from 1965 to 1970 for immigrants in the United States six to twenty years was disproportionately upward particularly for those here six to ten years. The upward mobility was greatest for the Cuban immigrants and least for immigrants from the English speaking countries.

Immigrant Group or Ethnic Group

An analysis of the social or economic characteristics of immigrants can indicate that persons from a particular country (or group of countries) differ significantly and substantially from other immigrants. It may be important to determine whether this represents a characteristic peculiar to immigrants from the country or whether the characteristic persists from generation to generation for members of the ethnic group from that country.

For example, controlling for the schooling and demographic variables mentioned above, as well as years since migration, adult white men born in Mexico have significantly lower earnings than immigrants from other countries. To determine whether the lower earnings is a characteristic of Mexican immigrants per se, or whether it is a characteristic of the Mexican origin ethnic group, using the 1970 Census of Population, the earnings of second and third generation Mexican-Americans can be compared with that of second and third generation Anglo-Americans, white men who are not of Spanish origin.[21]

Second generation Americans -- native born men with foreign born parents -- can be identified in the 1970 Census, 15 percent questionnaire, with second generation Mexican-Americans identified by the code for Mexico as the parent's country of birth. Third generation Americans -- native born men with native born parents -- can also be identified in the 15 percent questionnaire, with third generation Mexican-Americans living in the southwest indicated by the Spanish surname variable.[22] Holding other variables constant, Mexican origin men have earnings about 15 to 25 percent lower than Anglo men, whether the comparison is made on first, second, or third generation Americans. The significantly lower earnings of male Mexican immigrants compared to other white male immigrants appears to reflect an ethnic group effect rather than their immigrant status per se.

FURTHER RESEARCH

There are other important research questions concerning the economic progress of immigrants that can be answered with existing data. For example, using a one-in-a-hundred sample from the 1970 Census it would be possible to analyze the earnings and occupational status of Black and East Asian immigrants as well as to undertake more detailed analyses for white immigrants from particular countries. The progress of these groups could be compared with native born persons of the same race or ethnicity, and with white immigrants in general.

The SIE makes it possible to analyze the extent to which the use of the English language varies among persons of different countries of origin by the length of time they have been here and with the extent of schooling in the United States. The effect of one's knowledge of English on earnings and occupation would of course be an important study. Using Census or SIE data, it is possible to analyze the extent to which the rise in earnings with years in the United States is due to changes in occupation or to rising earnings within occupations.

Although the discussion has thus far focused on men, similar analyses can be performed for women. In practice, however, there is a problem. Labor market experience is an important determinant of earnings and for men the crude assumption can be made that they have been in the labor market each year since leaving school. This assumption is far less tenable for women, however, as they often interrupt their work in the labor market during child rearing.[23] Data are generally not available for the past labor market experience of women, and earnings potential is not reported for women who do not work. The Census and the SIE data could be used to analyze the current labor force participation of women. This should include not only the usual variables (schooling, current marital status, husband's income, number and age distribution of children, etc.) but also the country of birth of the woman and her husband, and the number of years she has been in the United States. Then, predicted values of labor force experience could be included in an analysis of earnings for foreign born women.

There are several research needs which cannot be satisfied with current data but which could be satisfied in future surveys, particularly the 1980 Census. A researcher's ideal would be a data set that contained the detail on country of birth, year of immigration, citizenship and Spanish origin in the 1970 Census 5 percent questionnaire, country of birth of parents and mother tongue in the 1970 Census 15 percent questionnaire, the several questions on the actual use of English and other languages in the SIE, a self-identified ethnic origin question and the nativity of one's grandparents. This would put on one data set the key variables for analyzing the social and economic progress of immigrants and their descendents. A retrospective question regarding past employment (or only for the past ten years) would be especially valuable for analyzing the earnings and occupational status of women, both immigrant and native born.

A major limitation of the current data sets for analyses of immigrants is that they are cross-sectional; they provide data on the person's characteristics at a point in time, with few questions regarding changes over time. The longitudinal data sets that exist are relatively small random probability samples of the population, and have too small a sample of immigrants for statistically reliable results.[24] Thus, rather than tracing the actual earnings and occupational status of immigrants, the researcher is compelled to use cross-sectional data and examine the differences in these variables among immigrants who came to the United States in different years, but are alike in other respects. This is a serious limitation. For example, even if other measured characteristics are the same, the Cubans who came to the United States in 1959 (the year Castro came to power) may differ in important but unmeasured ways from those who came ten years earlier or ten years later. A longitudinal data set would provide direct information on the extent of emigration of foreign born persons as well as a direct means of testing whether changes over time that are measured by the "years since migration" variable in cross-sectional data are unbiased estimates of actual longitudinal changes.

A longitudinal data set for immigrants, with a "control" sample of the native born, could be created in several ways. Members of the stock of foreign born persons could be identified using a large random sample of the population, for example, the Current Population Survey. Members of the annual flow of immigrants could be identified through Immigration and Naturalization Service records. A moderate sized subset of these foreign born persons (either the stock or the flow, or both) and a companion sample of native born persons could constitute a panel that would be interviewed every few years.

Another procedure is to link up the decennial Censuses of Population. Suppose a random sample of 5 percent of the population were asked to report an identifying number in the 1980 Census, and again in the 1990 Census. Using computer matching, a ten-year longitudinal data set would exist for approximately 0.25 percent of the population, or a 2.5/1000 sample. If this were done in each census, a set of matched pairs of census files could be developed for future researchers. Matched sample data tapes could be made available to researchers without the identifying number that linked the censuses. Each pair of census files would be large enough for most statistical analyses, yet sufficiently small so that concerns over the invasion of privacy would be minimal.

The identifying number used to link the census records would, of course, have to be one that could be easily remembered by the population over a ten-year period. The social security number would be ideal in this regard, and has been asked each month as an interviewer check item in the Current Population Survey conducted by the U.S. Bureau of the Census.

FOOTNOTES

[1] For earlier work, see the analyses of pre-World War I immigrants in Paul H. Douglas, "Is the New Immigration More Unskilled than the Old?" *Journal of the American Statistical Association* (1919) and Marcus Lee Hansen, *The Immigrant in American Life* (Cambridge: Harvard University Press, 1940). For a bibliography of recent research, see Paul Meadows, *et al*, editors, *Recent Immigration to the United States: The Literature of the Social Sciences*, RIIES Bibliographic Studies, No. 1 (Washington: Smithsonian Institution Press, 1976).

[2] See the *Preliminary Report, Domestic Council Committee on Illegal Aliens*, U.S. Department of Justice, December 1976, especially Chapters 7 and 8.

[3] Several research papers are available from the author upon request: "The Effect of Americanization on the Earnings of Foreign Born Men," June 1977, mimeo, "A Longitudinal Analysis of the Occupational Mobility of Immigrants," *Industrial Relations Research Association Proceedings* (forthcoming 1978), "An Analysis of Earnings Among Mexican Origin Men," *1977 Proceedings of the American Statistical Association Business and Economic Statistics Section* (forthcoming), and "Sons of Immigrants, Are They at an Earnings Disadvantage?" *American Economic*

Review, February 1977. These papers are the source for the empirical findings discussed in Section III.

[4] U.S. Bureau of the Census, *1970 Census of Population*, Subject Reports, *National Origin and Language*, 1973, Table 1. This volume is a very useful source for summary data on the foreign born.

[5] *National Origin*, Table 17.

[6] *National Origin*, Table 1.

[7] The questions asked in each census from 1790 to 1970 are reported in U.S. Bureau of the Census, *Population and Housing Inquiries in U.S. Decennial Censuses, 1790 to 1970*, Working Paper No. 39, Washington, D.C., 1973. For studies of immigrants and their children using census data from 1850 to 1950, see Simon Kuznets and Ernest Rubin, *Immigration and the Foreign Born*, Occasional Paper No. 46, National Bureau of Economic Research, 1954 and E. P. Hutchinson, *Immigrants and Their Children, 1850-1950* (New York: John Wiley, 1956).

Another data source for the earnings and occupation of immigrants is the 1911 U.S. Immigration Commission Reports. The micro-data are no longer available, but detailed cross-tabulations of the data appear in the Commission reports. Although the quality of the data is uncertain, they have been used in several studies in recent years. See, for example, Francine Blau, "The Impact of Sex and Ethnicity on Wages in the United States, 1909," mimeo, November 1977, and the references therein.

[8] Aliens (foreign born persons who are not citizens) were identified in the 1820 and 1830 censuses, but there were no questions that could differentiate native born citizens from naturalized citizens. Citizenship was then asked in every census since 1890, except the 1960 census when it was asked only in New York and Puerto Rico.

[9] In the 1940 Census respondents were asked to report their income in 1939 from wages and salary, and whether they received $50 or more from other sources. In the more recent censuses annual income is reported separately for wages and salary, own business and other sources.

[10] Religion has never been asked in the U.S. Census of Population. It was asked in the March 1957 Current Population Survey. (See, "Religion Reported by the Civilian Population of the United States: March 1957," *Current Population Reports*, Series P-20, No. 79, U.S. Bureau of the Census, February 1958). The question on ethnic origin in the Current Population Survey and the proposed question for the 1980 Census are structured so as not to reveal the respondents' religion. The 1971 Census of Canada, which in many ways is very similar to the 1970

U.S. Census of Population, includes a question on religion, as well as ethnicity, country of birth and year of immigration. Some non-govenmental data sets for the U.S. include religion. See, for example, the analysis of the relation between religion and income and occupation in the National Opinion Research Center (NORC) data reported by Andrew Greeley, *Ethnicity, Denomination and Inequality* (Beverly Hills: Sage Publications, 1976).

[11] There is a presumption that those who report a typically Jewish mother tongue (Yiddish, Hebrew or Ladino in the 15 percent questionnaire are of Jewish origin, although not all Jews report one of these mother tongues. See, Erich Rosenthal, "Equivalence of United States Census Data for Persons of Russian Stock or Descent with American Jews: An Evaluation," *Demography*, May 1975, pp. 272-290.

[12] The race question in the 1970 Census of Population has the following categories: White, Negro or Black, American Indian, Japanese, Chinese, Filipino, Hawaiian, Korean and Other. Respondents who indicated American Indian were asked to specify their race.

[13] The "type" of Spanish origin can be identified: Mexican, Cuban, Puerto Rican, Central or South American and others of Spanish origin but who were born in or grew up in the

Central and Southern states of the U.S. misinterpreted the question and indicated they were of "Central or South American" origin. This limits the usefulness of this category in the Spanish origin question.

[14] For the five southwestern states, California, New Mexico, Arizona, Colorado, and Texas, the Bureau of the Census used a list of 8,000 Spanish surnames to code a Spanish surname variable.

For a discussion of the problems of defining persons of Spanish origin see José Hernandez, *et al*. "Census Data and the Problem of Conceptually Defining the Mexican American Population," *Social Science Quarterly*, March 1973, pp. 671-687, and *Counting the Forgotten* (Washington: U.S. Commission on Civil Rights, 1974). See also, *1970 Census of Population*, Subject Reports, *Persons of Spanish Surname* (Washington: Bureau of the Census, 1973) and *1970 Census of Population*, Subject Reports, *Persons of Spanish Origin* (Washington: Bureau of the Census, 1973).

[15] The specific country of birth for the foreign born is reportedly for only seventeen countries, but about 70 percent of the foreign born adult men in the U.S. in 1970 came from these countries. (*National Origin*, Table 10).

[16] The data were stratified so that the coefficient of variation of the sampling estimate of the poverty rate would be about 10 percent for each state.

[17] Although race and ethnicity are asked in the Current Population Survey, there is no information on country of birth or country of birth of parents.

[18] When the foreign born variable (FOR) is added to the regression equation with the schooling and demographic variables, it has an observed F-ratio of 3.1, less than the critical F-ratio of 6.7 for a 1 percent level of significance (one thousand observations). When the set of variables is entered, FOR, (FOR) (YSM), and FOR(YSM)^2, where YSM is the number of years the foreign born person has lived in the U.S., the joint observed F-ratio is 5.0, substantially greater than the critical F-ratio of 4.6.

[19] On average, the earnings of the foreign born are 10 percent lower after five years in the country, 3 percent lower after ten years, reach equality at thirteen years, are 6 percent higher after twenty years and thirteen percent higher after thirty years.

[20] The frequency distribution of year of immigration among adult white foreign born men, by citizenship is:

	Year of Immigration (percent)						
	1965-69	1960-64	1955-59	1950-54	1945-49	Pre-1945	Total
Aliens	39.3	29.9	15.1	7.6	3.0	5.1	100.0
Naturalized citizens	2.4	7.7	14.7	15.3	11.5	49.4	100.0
Total	15.4	15.6	14.8	12.6	8.5	33.1	100.0

One-third of adult white foreign born men are aliens.

Source: 1970 Census of Population, 5 percent questionnaire, one-in-a thousand sample.

[21] Because of data limitations, the term "third" generation is applied here to all native born persons with native born parents, without regard for when their ancestors came to the United States.

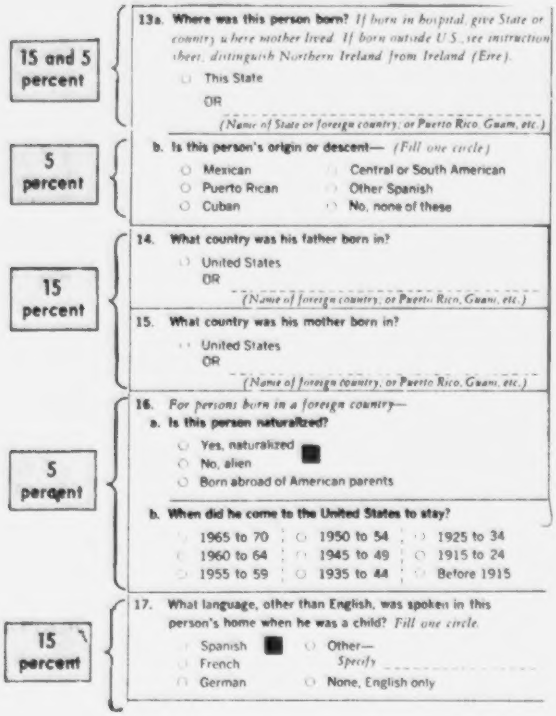
[22] About 10 percent of Spanish surname men living in the southwest reported a mother tongue other than English or Spanish or what their parents' country of birth was other than the U.S. or Mexico. It was assumed these men are not of Mexican origin.

[23] For an analysis of the effect of interrupted work experience on the earnings of women see Jacob Mincer and Solomon Polachek, "Family Investments in Human Capital: Earnings of Women," *Journal of Political Economy*, March 1974, Part II, pp s76-s108.

[24] An important exception is the longitudinal data on occupation, industry and class of worker in 1965 and 1970 in the 1970 Census of Population.

TABLE 1

1970 Census of Population Questions Regarding Immigrants and their Children, 5 Percent and 15 Percent Questionnaires



15 and 5 percent

13a. Where was this person born? *If born in hospital, give State or country where mother lived. If born outside U.S., see instruction sheet; distinguish Northern Ireland from Ireland (Eire).*

○ This State

OR

(Name of State or foreign country; or Puerto Rico, Guam, etc.)

5 percent

b. Is this person's origin or descent— *(Fill one circle)*

○ Mexican	○ Central or South American
○ Puerto Rican	○ Other Spanish
○ Cuban	○ No, none of these

15 percent

14. What country was his father born in?

○ United States

OR

(Name of foreign country; or Puerto Rico, Guam, etc.)

15. What country was his mother born in?

○ United States

OR

(Name of foreign country; or Puerto Rico, Guam, etc.)

5 percent

16. *For persons born in a foreign country—*

a. Is this person naturalized?

○ Yes, naturalized

○ No, alien

○ Born abroad of American parents

b. When did he come to the United States to stay?

○ 1965 to 70	○ 1950 to 54	○ 1925 to 34
○ 1960 to 64	○ 1945 to 49	○ 1915 to 24
○ 1955 to 59	○ 1935 to 44	○ Before 1915

15 percent

17. What language, other than English, was spoken in this person's home when he was a child? *Fill one circle.*

○ Spanish	○ Other— *Specify*
○ French	
○ German	○ None, English only

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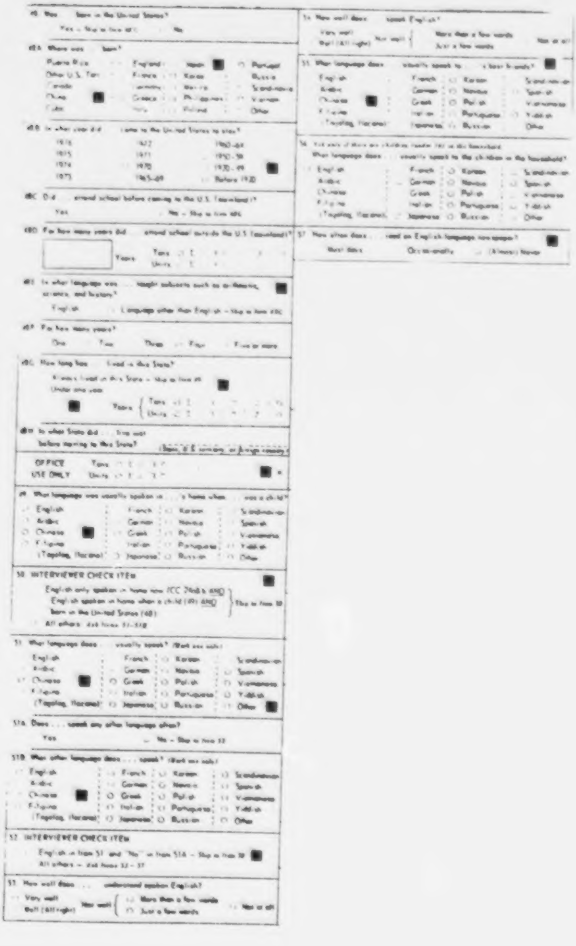
TABLE 2

Survey of Education and Income Questions Regarding Immigrants and their Children, for Persons Age 14 and Older



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GREENER PASTURES:
AMERICAN EXPATRIATION AND EXPATRIATES

Van B. Shaw

INTRODUCTION

For obvious reasons, American social scientists have devoted a great deal of attention to immigration to the United States. The library for this subject is voluminous and continues to grow to the present time. At the same time, with rare exceptions, little attention has been given to the substantial number of our citizens who leave this country every year, renounce their citizenship or have it coercively removed from them and take up residence and citizenship elsewhere. Although this outmigration has been a mere trickle as compared to the flood of immigrants, a study of its contours might be revealing in terms of certain of the dissatisfactions with American life which are felt by great masses of the citizenry even though only a few have the courage and the resources to make the move.

The present study is an attempt to make a beginning statement concerning American expatriation and expatriates. It will concern itself primarily with expatriation in its full and legal sense -- that of renunciation of or the forceful removal of United States citizenship -- rather than the more popular usage which often labels as expatriates various varieties of United States citizens who live abroad but retain their citizenship. Such persons will not qualify as expatriates in this study; the index of expatriation is loss of citizenship, either voluntarily or involuntarily.

The literature on this subject is scanty. Two associated types of literature are more abundant. The first is material concerning a number of Americans, usually literary and artistic personages or, more recently, draft resisters, who have spent a good deal of their lives abroad,[1] and the second is concerned with accounts of American communities and enclaves abroad, usually made up of political appointees and business employees who are assigned to foreign posts.[2] Although some of this literature is instructive on a number of points (for example, the culture shock of Americans facing ways of behavior they cannot comprehend), it does not speak directly to the point of true expatriation, involving the renunciation of or the involuntary loss of citizenship.

Literature on the true expatrate is limited. In 1965, Wilbur S. Shepperson published *Emigration and Disenchantment: Portraits of Englishmen Repatriated from the United States*. It ". . . proposes to investigate the magnitude and significance of the British return movement to 1865, to offer abbreviated sketches on some seventy-five returnees, and to explore the personal circumstances which led fifty of the would-be immigrants to leave America."[3] Here, then, is one theme -- nationals of other countries come to the United States, become citizens but then become disenchanted or at least feel the return-home pull, and return to their native land, giving up United States citizenship in the process. In 1966, Murdaugh Stuart Madden and Sherman L. Cohn published an article entitled, "The Legal Status and Problems of the American Abroad." "This article demonstrates in a summary manner the legal pitfalls that can await the American because he is abroad."[4] Among the pitfalls cited was a discussion of a number of activities in which the American abroad might engage with a resultant possibility of involuntary loss of citizenship. During the late 1960s and early 1970s there was sufficient interest in expatriation that a how-to-do-it guide emerged. Robert Hopkins published, *I've Had It: A Practical Guide to Moving Abroad*, in 1972. Hopkins stated that "According to a Gallup Poll made in 1971, twelve percent of the United States population -- some twenty-four million Americans -- would emigrate to another country given the chance, a figure double that of a decade ago."[5] His book is intended as a practical guide to those who might wish to explore the possibilities of living abroad but retain United States citizenship as well as those interested in genuine expatriation. Two other relevant publications include, Abraham Scharf, "A Study of the Law of Expatriation" and *Yale Law Journal*, Expatriating the Dual National."[6] In addition to these sources there have been a number of popular magazine articles on out-migration from the United States.[7] Finally, newspapers often report individual or group cases of expatriation.

Two sources give us a statistical record of the amount and kind of expatriation. The *Annual Report* of the Immigration and Naturalization Service of the Department of Justice includes a table entitled: "Persons Expatriated, by Grounds and Year Reports Received."[8] In addition, the Department of State, which makes the expatriation decisions, keeps an unpublished yearly tally of expatriation proceedings under the title, "Determinations of Loss of United States Nationality: Section of Law--Country."[9] Much of the data for the present study is drawn from these last two sources.[10]

THE LEGAL BASIS OF EXPATRIATION

The last major revision of expatriation law was contained in the Immigration and Nationality Act of 1952. However, this act did not repeal many of the provisions of the Nationality Act of 1940, some of which continued to be used as the basis of expatriation after the 1952 act was passed. Also, after 1952, persons continued to be expatriated under the provisions of Sections 2 and 3 of the Act of March 2, 1907, and the Act of September 22, 1922, as well as by treaties of the United States with foreign nations.[11]

Beginning in 1958, the Supreme Court struck down four provisions of acts of Congress by declaring it unconstitutional to expatriate persons involuntarily for (1) deserting the armed forces in time of war,[12] (2) departing from or remaining away from the United States to avoid military duty,[13] (3) extended residence abroad by naturalized citizens,[14] and (4) voting in a foreign political election.[15]

VOLUNTARY vs. INVOLUNTARY EXPATRIATION

As indicated earlier, this study of expatriation is concerned with expatriation in its full sense of the loss of United States citizenship and not with the simple process of extensive residence abroad while retaining citizenship. Expatriation by loss of citizenship can be of two types, voluntary or involuntary.

Although there is a certain arbitrariness about placing some cases under these categories, the present study will employ the following criteria for distinguishing between voluntary and involuntary expatriation.

Voluntary expatriation: All cases in which individuals (1) make formal renunciations of United States nationality or (2) have, or can reasonably be assumed to have, accepted the nationality of or sworn an oath of affirmation or allegiance to a foreign state.

Of the various acts of Congress concerning expatriation, the following are construed to conform to the above criteria (all emphases added):

1. Making a *formal renunciation of nationality* in a foreign state.[16]

2. Making in the United States, when the United States is in a state of war, a *formal written renunciation of nationality.*[17]

3. Obtaining *naturalization in a foreign state.*[18]

4. *Taking oath, affirmation or other formal declaration of allegiance to a foreign state.*[19]

5. Accepting or performing the duties of any office, post or employment under the government of a foreign state which *requires nationality or oath of affirmation or other declaration of allegiance.*[20]

6. Dual nationality by birth, *claimed benefits of nationality in a foreign state* and lived there three years after age twenty one.[21]

7. Minor residing in a foreign state whose parents lose nationality *if he thereby acquires the nationality of the foreign state.*[22]

8. A United States national by naturalization, residing in former nation two years *if such residence gives him nationality there.*[23]

9. Entering or serving in the armed forces of a foreign state, *if he has or acquires the nationality of such foreign state.*[24]

This is probably the broadest construction possible of voluntary expatriation. The right to voluntary expatriation -- to make one's own decision to change citizenship from one country to another -- has seldom been questioned in the United States. Justice Black, who wrote the opinion in the Afroyim case, summarized the situation as follows:

> On three occasions, in 1794, 1797, and 1818, Congress considered and rejected proposals to enact laws which would describe certain conduct as resulting in expatriation. On each occasion Congress was considering bills that were concerned with recognizing the right of voluntary expatriation and with providing some means of exercising that right. In 1794 and 1797 many members of Congress still adhered to the English doctrine of perpetual allegiance and doubted whether a citizen could even voluntarily renounce his citizenship. By 1818, however, almost no one doubted the existence of the right of voluntary expatriation, but several judicial decisions indicated that the right could not be exercised by the citizen without the consent of the Federal Government in the form of enabling legislation.[25]

Involuntary expatriation: All cases in which the individuals have not formally renounced their United States nationality and in which they have not, or cannot necessarily have been assumed to have, sworn an oath of affirmation or allegiance to a foreign state, but in which they have performed an act (or failed to perform one) violative of American expatriation law and which the Department of State has used as grounds for expatriation proceedings.[26]

Although not all of them have been used recently, the tally sheets of the Department of State (1962 to 1972) list twelve possible grounds for involuntary expatriation.

1. Entering or serving in the armed forces of a foreign state.[27]

2. Voting in a political election in a foreign state.[28] (Declared unconstitutional in 1967).[29]

3. Deserting the armed forces in time of war.[30] (Declared unconstitutional in 1958).[31]

4. Committing an act of treason, attempting forceful overthrow of the United States government or bearing arms against the United States.[32]

5. Departing from or removing outside the jurisdiction of the United States for the purpose of evading or avoiding training and service in the armed forces during time of war or period of national emercency.[33] (Declared unconstitutional in 1963.)[34]

6. United States national who was or whose parents were nationals of another state who remains six months outside the United States.[35]

7. United States national born outside the United States to one citizen and one alien and who fails to come to the United States prior to twenty-three years of age and reside five years in the United States thereafter.[36]

8. Woman who marries an alien who is ineligible for citizenship.[37]

9. Woman who marries a foreigner.[38] (Repealed by Act of March 3, 1931, except when the woman applies for renunciation of citizenship.)[39]

10. A United States national by naturalization residing in the foreign state of which he was formerly a national for two years (1907 Act) or three years (1940 and 1952 Acts.)[40] (Declared unconstitutional in 1964.)[41]

11. A United States national by naturalization who resides for five years in any other foreign state or states.[42]

12. By treaties.

Although it is possible that in some of the cases above certain individuals may have taken the action (or failed to take it) with the express intent of being expatriated, it remains true that they did not initiate such action directly but, instead, the initiatory action was taken by the Department of State.

The concept of involuntary expatriation -- expatriation enforced upon an individual contrary to his wishes -- has increasingly come under attack. The four court decision of unconstitutionality cited earlier were all declarations concerning forms of involuntary expatriation. Although the Afroyim case decision was limited to the issue of expatriation as a result of voting in a foreign election, in his opinion, Justice Black made much more sweeping statements about the legitimacy of the concept as a whole.

> Moreover, in the other cases decided with and since Perez this court has consistently invalidated on a case-by-case basis various other statutory sections providing for involuntary expatriation. It has done so on various grounds and has refused to hold that citizens can be expatriated without their voluntary renunciation of citizenship.[43]
>
> In our country the people are sovereign and the Government cannot sever its relationship to the people by taking away their citizenship.[44]
>
> Rather the Amendment (14th) can most reasonably be read as defining a citizenship which a citizen keeps unless he voluntarily relinquishes it. Once acquired, this Fourteenth Amendment citizenship was not to be shifted, canceled, or diluted at the will of the Federal Government, the States, or any other governmental unit.[45]
>
> Citizenship is no light trifle to be jeopardized any moment Congress decides to do so under the name of one of its general or implied grants of power. In some instances, loss of citizenship can mean that a man is left without the protection of citizenship in any country in the world -- as a man without a country. Citizenship in this Nation is part of a cooperative affair. Its citizenry is

> is the country and the country is its citizenry. The very nature of our free government makes it completely incongruous to have a rule of law under which a group of citizens temporarily in office can deprive another group of citizens of their citizenship. We hold that the Fourteenth Amendment was designed to, and does, protect every citizen of this Nation against a congressional forcible destruction of his citizenship, whatever his creed, color, or race. Our holding does not more than give to this citizen that which is his own, a constitutional right to remain a citizen in a free country unless he voluntarily relinquishes that citizenship.[46]

Should the Supreme Court remain consistent (they may not; this was a 5-4 decision), other involuntary expatriation statutes which are challenged on a case by case basis may be in danger.

VOLUME OF EXPATRIATION

Despite the Gallup Poll finding of an increased desire to live elsewhere, fewer Americans are being expatriated in the last few years than was true in the 1940s and 1950s. From 1954 to 1963, 43,000 Americans lost their citizenship for a variety of reasons[47] but between 1962 and 1971 the figure had declined to around 21,000[48] and from 1965 to 1974 the figure stood at 15,950.[49]

Statistics on expatriation are somewhat in disarray. Until 1948 the Annual Reports of the Immigration and Naturalization Service were presented with a considerable amount of approximation. For example, the reports for 1945, 1946, and 1947 read as follows:

> 1945: 1936 in addition to approximately five thousand citizens most of whom were American-born Japanese whose renunciation of citizenship was approved under Sec. 401, 1940.[50]

1946: 1113 in addition to an unknown number who failed to return to the United States when parents were naturalized elsewhere.[51]

1947: 6758 in addition to approximately 4500 American-born Japanese naturalized in Japan and 150 American-born Japanese employed by the Japanese government and an unknown number who failed to return to the United States in time of war.[52]

The 1948 report set forth only a total figure.

In 1949 the Service adopted a standardized reporting form which, with minor variations, has remained unchanged to the present time. However, because they made a revision of their own report, it is sometimes difficult to establish the facts. The revision occurred in their 1963 *Annual Report*, when they revised their figures for the preceding decade on grounds cited in the following footnote:

> Cases of 493 persons expatriated for departing from or remaining away from the U.S. to avoid military service, reported for 1954-1963, were not included because the statutory provision was ruled unconstitutional by the U.S. Supreme Court on February 18, 1963.[53]

Whether the expatriation decisions concerning these 493 persons were automatically rescinded is unstated, but the resulting discrepancies from report to report do give the statistician troubles. (Both figures have been recorded in the tabular statements which follow.)

There are also problems with the tally sheets prepared by the Department of State. First and foremost, State Department officials are exceedingly reluctant to share their reports for research purposes. Perhaps their reluctance is justifiable. They explained their misgivings in the following terms:

> There are several reasons for not sending out our own statistical tables. One of the reasons is that there are certain variations between our statistics and the statistics published by the Immigration and Naturalization Service that could well be confusing to a person comparing both sets of statistics. Statistics are published by the Immigration and Naturalization Service on a fiscal year basis. Until last year the Department had compiled its statistics on a calendar year basis. The variations are also the result of the unavoidable lapse between the time when the determination of loss is made by the Department and the time the copies of the approved Certificates of Loss of Nationality are transmitted to, and compiled by, the Service. It should be noted that the Department does not send statistics on loss of nationality to the Immigration and Naturalization Service. It merely sends that Service a copy of every approved Certificate of Loss of Nationality. Compilation of these copies is done by the Service.
>
> Another factor accounting for the variations in statistics is that while the Department's statistics include persons who ceased to be citizens by reasons of non-compliance with the "retention" provisions of Section 301 (b) of the Immigration and Nationality Act, the Immigration and Naturalization Service's statistics do not. Finally, the tables we maintain would be meaningless to anyone who is not familiar with the provisions of law relating to loss of nationality.
>
> For the above reasons the Department has not made public distribution of its statistics on loss of nationality.[54]

Another problem with Department of State statistics arose over the report for the year 1968. The tables indicate a total of cases of expatriation of 2469, but 1929 of them were in a column labeled, "Closed Awaiting Afroyim" with a footnote indicating that:

> In this column are cases of persons expatriated under existing interpretations. However, these cases are in suspense pending issuance of guidelines under Afroyim by the Attorney General or the Department's Legal Adviser.[55]

In an attempt to find what final disposition was eventually made in these cases, a letter was sent to the

Department. The response gave little basis for determining how these 1929 cases should be handled statistically.

> On January 18, 1969 the Attorney General issued a statement of Interpretation of the *Afroyim* decision entitled "Expatriation of United States Citizens." Guidelines for implementation of the Attorney General's Statement were developed by the Departments of State and Justice. The 1,929 cases you are concerned with were disposed of under those guidelines. We have no record of how these cases were decided. They were reviewed individually and a decision of expatriation or nonexpatriation was made strictly on the merits of the case in light of the Afroyim criteria.[56]

This communication leaves unanswered the question of whether the cases which eventuated in expatriation should still be counted in the 1968 total or if they were included in the 1969 (or later) reports.

The reader should bear in mind all these problems and disclaimers when examining Table 1 concerning the volume of expatriation since 1948.

The data in Table 1 make it quite clear that, although there are yearly fluctuations, the total volume of expatriation has declined markedly from the higher figures of the 1940s and 1950s. Why this should be true while at the same time the Gallup Poll indicates an increased desire to live elsewhere is not ascertainable. One factor is perfectly clear from the statistical data -- a major portion of the decline is in the lessened use by the Department of State of the involuntary type of expatriation. Given the definitions of voluntary and involuntary used in this study, a precise factoring out of the percentages of each is impossible.[57] However, a fairly reliable approximation[58] of the division for the decade

TABLE 1

TOTAL VOLUME OF EXPATRIATION

	Number expatriated, Annual Reports, U. S. Immigration and Naturalization Service		Number expatriated, Department of State "Determinations of Loss of U. S. Nationality
Year	Original	Revised	
1948	6779		
1949	8575		
1950	5792		
1951	4443		
1952	3265		
1953	8350		
1954	6938	6804	
1955	4202	4063	
1956	4987	4918	
1957	5564	5503	
1958	5908	5863	
1959	2912	2899	
1960	3377	3374	
1961	3669	3657	
1962	3226	3212	3274
1963	3167	3164	3380
1964	2321		2394
1965	2083		2222
1966	1919		2302
1967	2010		1249
1968	1400		2497 (including Afroyim)
			568 (excluding Afroyim)
1969	450		1206
1970	2064		2371
1971	1618		1814
1972	1634		1877 (first half year)
1973	1250		
1974	1522		

1962 to 1971 can be ascertained by using the Department of State data as the basis for calculations presented in Table 2.

TABLE 2

VOLUNTARY AND INVOLUNTARY EXPATRIATION

Year	Voluntary No.	Voluntary %	Involuntary No.	Involuntary %	Total No.	Total %	
1962	1006	31	2268	69	3274	100	
1963	1091	32	2289	68	3380	100	
1964	1233	52	1161	48	2394	100	
1965	1058	48	1164	52	2222	100	
1966	1231	53	1071	47	2302	100	
1967	1025	82	224	18	1249	100	
1968	2187	88	310	12	2497	100	(inc. Afroyim)
1969	1087	90	119	10	1206	100	
1970	2217	94	154	6	2371	100	
1971	1587	87	227	13	1814	100	
Totals	13,722	60	8987	40	22,709	100	

Thus, we see that during this decade there was a substantial reduction in the proportion of cases in the involuntary category. In addition, examination of the earlier data makes it possible to assert without much equivocation that in the early years some 75 to 90 percent of the cases were involuntary and that the later years include only some 5 to 15 percent (perhaps even less) in that category. Thus, it is possible that voluntary expatriation may have stayed at a more or less consistent absolute level (or perhaps even increased) in recent years.

WHERE ARE THE GREENER PASTURES?

Where do our expatriates go? In the period under survey, the Annual Reports of the Immigration and Naturalization Service do not speak to this point.[59] The unpublished tabulation of the Department of State is more helpful since it includes a record of the countries to which persons were expatriated. This does not necessarily mean that they all became citizens of the countries listed since they may have become "men without a country" as in the celebrated case of Iva Toguri (Tokyo Rose) who was expatriated "to" Japan but did not become a Japanese citizen and lived in this country for some time without the benefits of citizenship anywhere. It is probably more properly thought of as a count of the country of residence at the time of expatriation. Furthermore, the data are not always comparable since the Department lists, each year, the twenty most numerous countries (or more if there is a tie for twentieth place) in which the expatriates reside. If, in any year, a country falls out of the top twenty, its expatriates are listed within the "miscellaneous" category. So the count is complete only for those countries which remain on the list for all the years under consideration. With these difficulties in mind, the data for totals of the decade from 1962 to 1971 can be examined in Table 3.

It is not surprising to note that the major recipients of our expatriates are our own next-door neighbors and that the vast majority of the remainder are in Europe.

TABLE 3

COUNTRY OF RESIDENCE AT TIME OF EXPATRIATION
1962 to 1971 inclusive

Country	Number	Years in top 20
Canada	4098	10
Mexico	2481	10
Italy	2069	10
Sweden	1950	8
United Kingdom	1356	10
Germany	1023	10
Japan	755	9
Australia	568	10
Greece	433	10
Norway	389	7
Denmark	346	9
Venezuela	341	10
Philippines	335	7
Israel	326	9
Poland	323	6
Switzerland	298	10
France	268	9
Ireland	222	4
Dominican Republic	111	6
Netherlands	107	5
Belgium	71	4
Spain	70	4
Portugal	68	2
Lebanon	50	2
New Zealand	40	3
Panama	39	4
Austria	35	2
Brazil	34	3
Republic of South Africa	34	2
British West Indies	28	1
Argentina	22	1
Sudan	20	1
El Salvador	16	2
Bahamas	12	1
Bermuda	7	1
Costa Rica	7	1
Nicaragua	7	1
Peru	7	1
Hong Kong BCC	6	1
Miscellaneous	2408	10
Total	20,780	(Excludes Afroyim cases)

With the exception of those who went to Venezuela, our expatriates did not discover Central America, South America and the West Indies until fairly late in the ten year period. Australia is of considerable interest to them but, except for those who went to Japan, Asia and Africa are relatively unpopular among our expatriates.

WHO EXPATRIATES? WHAT ARE THEIR MOTIVATIONS?

Without access to case files (and perhaps even with such access)[60] systematic data are not available to assess with any accuracy what kinds of persons the expatriates are nor the kinds of motivations which move them to expatriate. One suspects that Daniel Glaser is correct when he maintains that:

> Persons who conform to the norms of a country and are successful there -- by prevailing standards -- are least likely to leave that country voluntarily. Those who fail more often seek "greener pastures" elsewhere, and those who are defined by the dominant group as deviant are made uncomfortable or even expelled.[61]

We do not know if the movement represents a brain drain, whether it is primarily disaffected persons, whether it is a search for a new frontier, whether it is principally the movement "home" of previously naturalized citizens. We know from individual cases that it is all of these and much more, but it is not possible to know how important each may be in the total expatriation. The only data available come from a newpaper file of cases considered newsworthy which has been collected (by the author) over several years. They reveal a bewildering array of publicly stated reasons for expatriation. Two considerations make their validity questionable: (1) newspapers are attracted to the more dramatic cases and may neglect others, and (2) the publicly stated reasons may not always be the "real" reasons.

Although they cannot be factored out statistically among these cases certain themes emerge:

Financial: Sense of greater job opportunity; tax breaks; lower cost of living for retirees and people with limited income[62] and various other financial advantages.

Religious: Fear of loss of religious traditions. Opportunities for religious experiences not available here. United States seen as a "Godless" nation.

Family: To keep family together; to solve marital problems.

Military: To avoid the draft; desertion from armed forces.

Personal Problem: To find a more tolerant attitude toward such traits as drug addiction and homosexuality.

Political: Dissatisfaction with American political patterns and politics in general.

Racial Tensions: Blacks in protest of discrimination; whites in protest of Black militancy.

Cultural: Search for greater freedom of expression; pursuit of different life styles.

Return to Homeland: Naturalized citizens who return to the original homeland; American citizens who were raised elsewhere.

IS THE GRASS REALLY GREENER?

Just as many naturalized Americans become expatriates to return to their original homelands, many American expatriates are later repatriated to the United States. For instance, the Immigration and Naturalization Service Annual Reports report that 12,444 persons were repatriated between 1950 and 1959 and 3,579 between 1959 and 1968.[63] (The reduction may be at least partially explained by the larger percentage of voluntary expatriation in the later years.)

Little data are available to account for the return. Interview data collected by two of my students[64] among Italian expatriates reveal at least two themes: (1) Americans, particularly the young, find it difficult to accommodate to the formalities demanded in social relations in many foreign countries and criticize the greater degree of formal social class relationships, and (2) many expatriates at home become patriots abroad, reacting to what they consider to be ignorant and unacceptable criticism of American culture by their acquaintances abroad. Many fail to achieve what they set out to accomplish and find themselves more isolated than at home. At any rate, a goodly proportion of American expatriates eventually return to the United States.

CONCLUSION

As an opening statement the present study has attempted to bring together from a number of disparate sources what we know about expatriates and expatriation. As such, it probably raises more questions than it answers. If expatriation is deemed a subject worthy of continued research, there are a number of areas of exploration which need attention.

A more exhaustive bibliographical search would indicate whether we already know more than is reflected by the present study.

The prime concern, however, is the availability of data. It would be extremely helpful if the Department of State would be willing to gather and make available background data on expatriation (anonymously to avoid undue invasion of privacy). This would help give answers to the question of whether the expatriates are a particular kind of people in terms of age, sex, occupation, income, education, race, nationality background and various other variables or whether, instead, they are a relatively random sample of American citizenry.

The future of involuntary expatriation should be monitored. As cases arise, will the Supreme Court continue to declare other forms of involuntary expatriation to be unconstitutional? If so, where will the line be drawn between voluntary and involuntary? Will criteria similar to those advanced here be used or will either category be expanded beyond the definitions here employed?

Although difficult to come by, a sample of expatriated persons needs to be located. We know something of the nature of the complaints and dissatisfactions with our society from certain of our citizens. They organize and join protest movements, practice various kinds of both non-violent and violent dissent and otherwise let us know what they consider to be wrong, but still they choose to stay within the society. But in some ways an index of social disorganization constructed from the dissatisfactions and complaints of voluntary expatriates would be a more dramatic and a more powerful expression. These are the people who have gone "all the way," who have, to borrow Hopkins's title, said (often quietly and unobtrusively) "I've had it" and proceeded to sever their ties with their country. Ada Finifter has suggested that ". . . renunciation of nationality appears to have strong content validity as a 'hard' indicator of political estrangement" and notes the increase in formally recorded renunciations of nationality from 1950 to 1958.[65] Expatriation is an extremely serious decision -- the reasons for it are presumably equally serious. It might serve us well to know what they are.

By interviewing a sample of expatriates we could also learn something about the decision-making process and the motivational aspects which entered into it. How did they go about deciding to expatriate? Was it a spur of the moment decision or one reached after a great amount of agonizing and weighing of alternatives? Was it primarily the result of a "push" from the home country or a "pull" from the receiving one? Was there a particular precipitating event which triggered the decision? Were kin and close friends involved or was it a private decision? Did the expatriates make pilot, investigatory trips to the receiving country? Did the receiving countries encourage the movement; were they helpful in completing it?

How many of our expatriates wind up as "persons without a country," cut off from the protection of citizenship anywhere? Does this make life excessively difficult or are there possibly advantages to such a status?

How successful are American expatriates abroad? Does the move enhance their financial and social status or is it a process of downward mobility? How long does it take to make adjustments to the new country? What are the most difficult problems? As a result of the change, have they become more or less hostile to the United States?

What about those who repatriate? Are they primarily from the ranks of involuntary expatriates who never intended to give up their citizenship in the first place or does a substantial percentage of the voluntary group find the foreign pastures to be less green than they had expected? Are they welcomed back or are they looked upon with disdain and suspicion by either the governmental agencies involved or by the citizenry at large?

The answers to these and many other questions await the results of future research efforts in the expatriation field.

FOOTNOTES

[1] See, for example, (among others): Kenneth Fred Emerick, *War Resisters Canada: The World of the American Military-Political Refugees* (Knox, Pa.: Pennsylvania Free Press, 1972); Ernest Earnest, *Expatriates and Patriots: American Artists, Scholars and Writers in Europe* (Durham: Duke University Press, 1968); Nathalia Wright, *American Novelists in Italy* (Philadelphia: University of Pennsylvania Press, 1965); Roger N. Williams, *The New Exiles: American War Resisters in Canada* (New York: Liveright Publishers, 1971).

[2] See, for example, (among others): Harlan Cleveland, Gerard Mangone and John Adams, *The Overseas American* (New York: McGraw-Hill, 1960); Ludovic Kennedy, *Very Lovely People* (London: Hamilton, 1969); Dennison Nash, *A Community in Limbo* (Bloomington: Indiana University Press, 1970); Ruth Hill Useem, "The American Family in India," *The Annals of the American Academy of Political and Social Science*, V. 368 (1966) pp. 132-145.

[3] Wilbur S. Shepperson, *Emigration and Disenchantment: Portraits of Englishmen Repatriated from the United States* (Norman: University of Oklahoma Press, 1965) p. vii.

[4] Murdaugh Stuart Madden and Sherman L. Cohn, "The Legal Status and Problems of Americans Abroad," *The Annals of the American Academy of Political and Social Science*, 368, 1966, p. 119.

[5] Robert Hopkins, *I've Had It: A Practical Guide to Moving Abroad* (New York: Holt, Rinehart and Winston, 1972) p. vii.

[6] Abraham Scharf, "A Study of the Law of Expatriation," *St. John's Law Review*, 38, 1964; "Expatriating the Dual National," *Yale Law Journal*, 68, 1959.

[7] See, for example, *Newsweek*, "Gone Native," October 30, 1967, p. 37 and "Canada's Other U.S. Emigrants," May 24, 1970, p. 38; Gertrude Wilson and Olive Skene Johnson, "Draft Age Dilemma," *McCalls Magazine*, August, 1967, p. 34; *Time*, "The Latest American Exodus," November 30, 1970, p. 75; and *U.S. News*, "Why More Americans Are Leaving These Shores," August 26, 1974, p. 41.

[8] United States Department of Justice, Immigration and Naturalization Service, *Annual Report* (Washington, D.C.: U.S. Government Printing Office, 1945-1974).

[9] United States Department of State, "Determination of Loss of United States Nationality: Sections of Law -- Country," unpublished document, 1962-1972.

[10] After this paper was prepared, a new publication by Dennis Laurence Cuddy, *The Yanks Are Coming: American Immigration to Australia* (San Francisco: R. & E. Research Associates, 1977) appeared. It concerns total immigration, but includes some specifics about expatriates and persons who plan to expatriate. Those interested in the kinds of persons who emigrate, the nature of migrant experience in Australia and the likelihood of expatriation and repatriation, should consult this work.

[11] Edwina Austin Avery (ed.), *Laws Applicable to Immigration and Nationality* (Washington, D.C.: U.S. Government Printing Office, 1953).

[12] Trop v. Dulles, 356 U.S. 86 (1958).

[13] Kennedy v. Francisca-Martinez (and Rusk v. Cort), 372 U.S. 144 (1963).

[14] Schneider v. Rusk, 377 U.S. 163 (1964).

[15] Afroyim v. Rusk, 387 U.S. 253 (1967).

[16] 1940 Act 401f; 1952 Act 349 (a) (6)

[17] 1940 Act 401i; 1952 Act 349 (a) (7)

[18] 1907 Act, Sec. 2; 1940 Act 401a; 1952 Act 349 (a) (1)

[19] 1907 Act, Sec. 2; 1940 Act 401b; 1952 Act 349 (a) (2)

[20] 1940 Act 401d; 1952 Act 349 (a) (4)

[21] 1952 Act 350

[22] 1940 Act 407; 1952 Act 355

[23] 1940 Act 404a

[24] 1940 Act 401c

[25] Afroyim v. Rusk, *op.cit.*, pp 257-58.

[26] One might assume that many others have performed the violative acts but were not reported to the Department of State. It is also at least possible that of those known to the Department only certain ones are selected for processing, using whatever standards may be considered important as to which should be processed rather than systematically processing all reports.

[27] 1952 Act 349 (a) (3)

[28] 1940 Act 401e; 1952 Act 349 (a) (5)

[29] Afroyim v. Rusk, *op.cit.*

[30] 1940 Act 401g; 1952 Act 349 (a) (8)

[31] Trop v. Dulles, *op.cit.*

[32] 1940 Act 401h; 1952 Act 349 (a) (9)

[33] 1940 Act 401j; 1952 Act 349 (a) (10)

[34] Kennedy v. Francisca-Martinez, *op.cit.*

[35] 1940 Act 402

[36] 1952 Act 301b

[37] 1922 Act, Sec. 3

[38] 1907 Act, Sec. 3

[39] Avery, *op.cit.*, p. 872.

[40] 1907 Act, Sec. 2; 1940 Act 404b; 1952 Act 352 (a) (1)

[41] Schneider v. Rusk, *op.cit.*

[42] 1907 Act, Sec. 2; 1940 Act 404c; 1952 Act 352 (a) (2)

[43] Afroyim v. Rusk, *op.cit.*, pp. 255-56

[44] *Ibid.*, p. 257

[45] *Ibid.*, p, 262

[46] *Ibid.*, pp. 267-68.

[47] Madden and Cohn, *op.cit.*, p. 119.

[48] U.S. Department of State, *op.cit.*

[49] U.S. Department of Justice, *op.cit.*

[50] *Ibid.*, 1945, p. 24.

[51] *Ibid.*, 1946, p. 28.

[52] *Ibid.*, 1947, p. 23.

[53] *Ibid.*, 1963, p. 103.

[54] Letter to the Honorable Floyd Haskell, United States Senator from Colorado from Marshall Wright, Assistant Secretary for Congressional Relations, June 7, 1973.

[55] U.S. Department of State, *op.cit.*, 1968.

[56] Letter to the author from Francis G. Rando, Chief, Foreign Operations Division, Passport Office, February

20, 1976. Enclosed was a copy of the Attorney General's Statement (*Federal Register*, V. 34, No. 15, Thursday, January 23, 1969) which moves toward an interpretation of involuntary expatriation very similar to the one adopted in this article. "Voluntary relinquishment of citizenship is not confined to written renunciation . . . It can also be manifested by other actions declared expatriative under the Act, if such actions are in derogation of allegiance to this country."

[57] The Annual Reports of the Immigration and Naturalization Service use subcategories, some of which include both voluntary and involuntary cases. Without access to the original files, no distinction can be made.

[58] Approximations since the Department's figures include one subcategory (Sec. 2, 1907 Act) which provides for expatriation under both voluntary and involuntary conditions. Only with case files could accurate apportionment be made. Since only 249 cases of a total of 22,709 fell under this section, they would not affect the percentages unduly. For Table 3 they were apportioned as equally as possible into the two divisions.

[59] A brief notation in the 1945 Report indicated that of a total of 1936 cases, 1143 were in Canada, 212 in Mexico and 296 in European countries.

[60] According to a letter from G. Caccitore, Chief, Foreign Operations, Passport Office, Department of State, December 6, 1966: "The Department does not maintain data which would furnish background information regarding the persons held expatriated. I regret to inform you also that we do not maintain any roster of the names of such expatriates which could be made available to you."

[61] Daniel Glaser, *Social Deviance* (Chicago: Markham Publishing Company, 1971) p. 2.

[62] Although they are not true expatriates in the legal sense, according to the *Denver Post* (1967:42), "There are 183,710 persons scattered from Hong Kong to Romania to darkest Africa who get a Social Security check from the U.S. Treasury every month." (Italy and Canada topped the list.)

[63] U.S. Department of Justice, *op.cit.*

[64] John Carper and Howard Jones, "Interviews with Expatriates in Italy," unpublished taped interviews, 1973.

[65] Ada W. Finifter, "Dimensions of Political Alienation," *American Political Science Review*, 64, 1970, p. 389.

A RESIDENTIAL SURVEY OF ILLEGAL ALIENS*

Leon Hunt

In some ways the subject of illegal immigration is like the weather. We talk a lot about it but have not been able to do much about it. One of the reasons for this may be that we are remarkably ignorant of this subpopulation in the United States. Everyone who has contacted illegal aliens in the course of his experience tends to define who they are in terms of that experience. For instance, if one lives in a border state. One is very likely to have a concept of the illegal alien as an agricultural worker. Those of us who live in Washington are likely to think of him as a Vietnamese or an Indian restauranteur. If one lives on the West Coast, one is likely to think of him as Oriental. If one is an INS immigration official concerned with enforcement, one probably will have a mental picture of an illegal alien which is a composite of the characteristics of those the official arrests.

Now, there is a very difficult statistical question which underlies all of this. We know that any individual is unlikely to encounter more than a small number of illegals in the course of his own experience. The composite of all these impressions is very likely to tell us nothing reliable about illegals as a group. So we have a fundamental problem if we are to know something about the size, characteristics and geographical distribution of the illegal alien population in the United States. If we are going to do any sort of systematic planning, if through discussion of issues we are to form any kind of rational policy concerning illegal aliens, we will need to know at least this: how many of them there are, who they are in terms of their characteristics and national origins, and where they are, how they are geographically distributed throughout the country. Now, you can go on to much more interesting questions. We would like to know a lot about their socioeconomic status, employment, education, use of social services, and all that sort of thing. But very often, these questions are secondary to the fundamental one of talking about the basic size of the population and about who the illegal aliens are.

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*Dr. Hunt did not provide us with a written paper. This is an edited transcript of his remarks at the RIIES/ISA workshop (see Appendix A).

In an attempt to better understand these questions, the INS contracted with J. A. Reyes Associates, a contract research firm, to develop a survey of the illegal alien population in the United States. The specific purpose of the survey was to estimate the size, composition, national origin, and geographic distribution of this population. From the very outset, we realized that such a survey is prone to all sorts of difficulties and imponderables. The design calls for face-to-face interviews with people whose status is illegal, individuals who stand to lose by identifying themselves as such. They are apt to be suspicious and they are certainly very different from the sorts of people in the population at large. We know from our experience in surveying other such populations, populations of criminals, populations of drug abusers, people whose status is illegal, that survey techniques, whether mailed questionnaires or face-to-face interviews, are very difficult to do in a reasonable or effective way. So there is, if you will, an anthropological or a sociological difficulty which attends this kind of survey in the first place.

Now if that were not enough, there is a second class of difficulties which is purely statistical and mathematical. If we take the estimates which we usually hear of between one and ten million illegal aliens, we get a frequency of somewhere between one-half and five percent of the general United States population. Furthermore, we strongly suspect, given INS experience, that there are many more illegal aliens in some places than in others. They are not homogeneously represented throughout the population. To get a notion of the difficulties which are attendant to this sort of low frequency maldistribution, let us consider a hypothetical example. Suppose there are one thousand people living in a small town which consists of one hundred houses. And suppose there are exactly ten people to each one of these houses. Now let us suppose that ten of these people have the characteristic in our survey which we want to estimate. We want to know with what frequency this characteristic appears in our population. Let us consider two situations. Suppose all ten of these people are in one household, and there are ninety-nine households which have none. This situation corresponds closely to what we think the distribution of illegal aliens is. For the second situation, suppose that the characteristic is evenly distributed and that one person with the characteristic is in each of the ten households. A very simple probability calculation shows that in the first case, with all ten clustered in a single household, the probability of getting an estimate of zero in frequency is 90 percent: that is, there is a 90 percent chance of estimating that the frequency which we know to be 1 percent, is zero. In the second case, where the individuals with the characteristic are evenly distributed, one in each of the ten households, the probability of getting an estimate of zero is zero. Assuming that the distribution of illegal aliens resembles situation one rather than situation two, the problem becomes clear. Such clustering means that there is a very high chance of making a low estimate or in statistical terms, it produces a very much larger variance in our estimate of characteristics in the sample. So the problem from the point of view of sample design is to discover a way to survey illegal aliens based on a household design that will give us a reasonable indication of what the frequency of illegal aliens is.

There is no perfect answer to this problem. One must do the best one can. But as it now stands, the design which will be used is a two-stage random stratified sample conducted in the ten most populous states. These states include about half of the total United States population. The two stages of the design refer to the random selection first of one thousand census tracts or rural grids and to a second selection of blocks within those census tracts.

What is the basis of the stratification? Since we believe illegal aliens are not evenly distributed, we would like to develop a survey which measures this unevenness in the distribution. As a working hypothesis, we have chosen to use the frequency or percentage of legal resident aliens as a surrogate for frequency of illegal aliens. That is, we assume that illegals will be clustered in the same places with legals, and therefore we use frequency of legal immigrants, which comprise approximately 4 percent of the population, as a means of stratifying our sample.

In our original deliberations, the sample survey was designed as a two-phased sample. In the first phase, we would take an initial smaller sample to discover if illegals do cluster with legals. We would than have tried to restratify the second phase in a more effective way. But for various reasons, this will not be done. There will only be one phase, and our assumption about the clustering of illegals with legals must remain untested. Assuming our stratification assumption is correct, the one phase design should be adequate for the estimation of the size of the population, although not necessarily for the information of its characteristics. This is an important distinction; it must be emphasized that our first purpose, our primary goal, is to estimate the size of the population.

In terms of the questionnaire and its administration, the instrument will be administered by local residents of the one thousand census tracts, who by and large have an ethnic identity with the groups that are predominant within these areas. A questionnaire consists of two parts. In the first part, we attempt to determine the demographic characteristics of the household. We ask the person who has been chosen the number of individuals living in the household, the number among them who are foreign born, and if there are foreign born residents of the household, we then try to find out as much about their characteristics as possible. In particular, we attempt to find information on the United States residency, their legal status, and their socioeconomic characteristics.

As a pre-test, a thousand interviews were conducted in three large cities which have large immigrant populations: in New York City, principally in Italian, Latin and Greek neighborhoods; in San Francisco, in Chinese, Japanese and Filipino neighborhoods; and in San Antonio, in Mexican-American neighborhoods. These one thousand interviews produced 336 foreign born residents. Out of these 336 foreign born residents twenty-six of them identified themselves as being illegal, that is, they did not have proper documentation or verification. These individuals in turn identified thirty-nine other people in their households as being illegals.

Therefore, we have some indication from the pre-test that the illegal status of an individual does not absolutely prevent him from talking about it. Illegal aliens are willing to respond to a questioner for several reasons. First, they may feel trust or affinity with the person who is administering the questionnaire because he is of the same ethnic background and comes from the same neighborhood. Second, it is widely known among illegal aliens that INS has a very uneven distribution of its enforcement personnel. They are principally concentrated on northern and southern borders. Illegals who are located elsewhere have a very minimal chance of being arrested. Even if they are arrested, the punishment is extradition (or having to leave the country), so the illegals do not stand to lose very much.

So the pre-test indicates that we will get a substantial number of responses from people who identify themselves or others as illegal aliens. Of course, there is no way that we can validate the results. However, through statistical techniques, it is possible to discover if there are any major biases from a strictly technical point of view. For example, the Census Bureau knows a great deal about broad characteristics in the distribution of household sizes and of legal immigrants in the United States. Our results can be checked against the broad characteristics which the Census Bureau has compiled to see if our sample has any obvious bias concerning any basic difficulty in the structure of the sample.

In conclusion, while there are a great many difficulties attendant to the design and implementation of the survey, the use of care, sensitivity, and statistical techniques should allow us to produce a reasonable estimate of the size of the illegal alien population in the United States. Something about the characteristics of illegal aliens will also be learned. The survey results should at least provide a beginning which can be elaborated upon by further research and can be used to help policymakers in their deliberations.

DISCUSSION

Charles B. Keely

My task here is to comment on the three preceding papers which illustrate some empirical research which has been undertaken on the question of immigrants and the foreign born in the United States.

I will comment first on the paper of Van B. Shaw. Shaw's work focuses on one subgroup among emigrants from the United States, namely, that group which voluntarily or involuntarily gives up its citizenship. Perhaps I should be more precise and say that most of the expatriates, by Shaw's definition, are also probably emigrants. But it is also possible that a legal expatriate may remain in the United States.

The major import of Shaw's work is that he raises the problem of American citizenship law. Many are calling for a review of the immigration law of the United States: some in order to reduce immigration; others to integrate immigration policy with foreign policy and manpower policy. But whatever the reason for the calls for review of immigration law, a review of the naturalization and citizenship sections of the Immigration and Nationality Code is usually not emphasized.

The United States has an ambiguous attitude toward citizenship. A native born citizen is not always treated as we might expect. For example, the American born child of undocumented aliens would be *de facto* deported if his or her parents are deported or required to depart the country. We can be sure that the American consuls overseas are not looking out for the interests of these American citizen children. In effect the United States is saying that being born in the territory, although the legal requirement for citizenship, in reality is not enough. There must also be a consanguineal requirement met, that is, that one or both parents must also be citizens, or at least permanent resident aliens, for the child to receive the full benefit and protection of the law. Further, in immigration law, certain benefits are given to the relatives of American citizens, e.g., under the preference system used to distribute visas. However, the benefits given to citizens are reserved for adult citizens primarily. This is clearly meant to avoid the situation of having people come to the United States solely in order to give birth to an American child and then reap the various benefits under immigration law. The reason for the limitation is clear. Nevertheless it does betray an ambiguous attitude toward citizenship.

As Shaw has pointed out, the deprivation of citizenship has come to be viewed by the courts more and more as a process to be avoided. It raises the basic philosophical and legal question as to whether citizenship, once granted, can or should be taken away by the government. I am obviously not talking here about fraudulent statements used to obtain citizenship in the first place. In that case, clearly, fraudulently obtained citizenship is in effect not citizenship at all, and always "revocable." I am talking of a case in which it is clear that citizenship was validly obtained and where the government, because of acts committed after citizenship or acts committed before citizenship and not concealed at the time of application for citizenship, attempts to deprive a person of his or her citizenship. The direction of the court seems to be an absolute right to citizenship once validly and licitly granted. The law does not state things so clearly, nor, as Shaw points out, is it all that clear that the recent direction of the court will continue.

Empirically, Shaw, like many others who study what are primarily emigrant populations, faces a sampling problem. Nevertheless, despite the lack of a representative sample, we may still gain insights through ethnographic studies of Americans who emigrate and, more particularly, Americans who give up, voluntarily or involuntarily, their citizenship. Shaw's discussion of the legal bases of the problem is to be commended, and pursuit of systematic research of various types of expatriates is certainly to be encouraged.

The paper by Barry R. Chiswick makes the major point that length of time in the United States (year of entry) is extremely important in the economic adjustment of immigrants as measured by earnings. What Chiswick is trying to do is use cross-sectional data, by controlling the year of entry, to give us some insights into the dynamics of adjustment. There are other ways to use census data to get at some of the dynamics of adjustment. For example, Ian Rockett of Brown University, is completing his dissertation on the downward occupational mobility of immigrants in the first few years after immigration. Using the Trieman scale for occupations, which is designed for comparability internationally, he is looking at the occupational changes of immigrants who entered the United States after 1965. By partialing out those people who were in the United States in 1965 and adjusted status, and using the questions on current occupation and occupation five years earlier, he was able to analyze whether there is short-term downward mobility similar to the findings of Anthony Richmond for Canadian society.[1]

Chiswick also suggests continuing the kind of study he has done, particularly on the children of immigrants. I might point out that this will be impossible for the 1980 Census if current plans are carried out, as they include dropping the question on the place of birth of parents of respondents.

In short, Chiswick's research is a very good use of census data. It verifies the hypothesis that length of time is important in terms of earning differentials, at least using cross-sectional data. But it also underscores the requirements for cohort analysis or longitudinal studies, as he himself points out and is so aware. Again, this underscores the problems of the U.S. data "system" on immigrants and the foreign born. The data system is in very bad shape. In fact, it is perhaps too much to call it a system at all. We know precious little about immigrants when they come, less about their future in the United States, and even still less about those who decide to leave the United States for whatever reason.

One final technical note concerns the suggestion to use Social Security numbers to link data systems. I might point out that in the 1973 three-way match study of Social Security records, Internal Revenue Service records, and Current Population Survey, that the number of persons with incorrect or missing Social Security numbers on the CPS was somewhere in the neighborhood of twenty-five or thirty percent. The difficulties of matching CPS with Social Security records (either beneficiaries or contributors) or IRS returns without a Social Security number obviously are overwhelming. Thus, although the Social Security number is looked upon with eagerness by some as a way to link data sets, and by others as a possible tool of Big Brother, it is clear that the use of the number in matching systems, although the technically correct way to proceed, presents major practical difficulties because of the inaccuracies (perhaps intentional) involved in putting social security numbers on administrative and other documents.

The third paper I wish to discuss presents some difficulties for me. However, I will not mince words. Let me also state that my understanding is that the presenter, Leon Hunt, is a consultant for J. A. Reyes Associates who hold the contract with INS to carry out the residential survey of illegal aliens.

The residential survey raises a number of questions. The original plan for the survey called for the survey of 100,000 households in twelve states. The primary purpose was to determine the size, composition and location of the illegal alien or undocumented population. The secondary purpose was to establish the demographic characteristics of the aliens, their modes of entry, occupations, and use of services. The sample design was based on the assumption that undocumented aliens clustered in the same places as persons who registered for the alien address report program each January. On this assumption, the Census Bureau recoded alien address reports. The plan was to sample from the twelve states one thousand census tracts or rural grids. Stage two was to sample blocks within the tracts. The sample size was to have been 100,000 households. It was assumed that from a sample of this size that enough individuals within those 100,000 households would be undocumented to meet the primary purpose, that is to establish the size, composition and location of the population and the secondary purpose, that is, be large enough to go into more detail on the composition and behavior patterns (modes of entry, visa usage, etc.). As Dr. Hunt has pointed out, the design calls for the use of local individuals from the areas to do the interviewing. I take some exception when he stated that the person should at least be from the same city. I happen to be from New York, and do not feel that that qualifies me to be considered as from the same groups or necessarily be able to develop rapport with the wide variety of immigrant groups in the city of New York. Although New Yorkers may be different from persons of other areas or states of the country, I do not thing that qualifies one to have a rapport with individuals from a large number of countries in New York City. Further, I would also question whether choosing people from a neighborhood means that they would have a rapport with the people in that community. This seems to me to be based on the assumption that ethnic neighborhoods are fairly homogeneous, that ethnic neighborhoods are all pretty much of one ethnic group. Certainly, in a city like New York this is not the case. The Upper West Side and the Lower East Side are places with persons from a wide variety of ethnic backgrounds. For example, choosing a person from the Upper West Side of Manhattan may mean that the individual chosen would be a Dominican. In that area there are large numbers of Puerto Ricans, Ecuadorians, and persons from numerous Spanish speaking countries of the Western Hemisphere. Thus, although the assumption that persons from the same ethnic background (racial and/or nationality) increase rapport in an interview situation seems to be part of conventional wisdom, I am not sure of any research data that purports to increase the validity and reliability of interview information solely on the basis of "ethnic" similarity. At least in some of the larger cities in this case, I am not sure that the ecological patterns are such that there are homogeneous neighborhoods which would make such a strategy have a significant payoff.

Thus, basically the Reyes Associates plan was to survey 100,000 households in twelve states in approximately one thousand census tracts or rural grids, in a two-stage sampling design. The actual fieldwork was to be carried out in two stages. The first stage was to include approximately ten thousand households. An analysis of those data would be made to see if the original assumption of clustering of undocumented aliens in places with high proportions of registered aliens was a correct one. Also, we were told, in the pretest involving about 680 interviews, 336 foreign-born residents were involved. From that group, twenty-six identified themselves as undocumented aliens, while twenty-seven individuals identified an additional thirty-nine household members as undocumented. It is not clear whether the twenty-seven who identified themselves are separate from that thirty-nine. Clearly, the problem of a multiplicity design in terms of estimating procedures is raised, which was not discussed at all. In fact, it is not clear to me whether there will be a multiplicity approach in making the estimations, or whether the information on the thirty-nine undocumented persons who were identified in the pretest by others was merely put in to show that it is possible to get people to identify themselves or to identify others as undocumented and thus that the questionnaire procedure would get results.

The design which I have outlined was to be done for approximately $800,000. This leads me to conclude that one might characterize the entire contracting situation as on-the-job training for the officials in INS involved in this requisition. To assume that 100,000 households of very difficult to reach people, requiring specialized interviewers who would probably need a good deal of training, who would not ordinarily be available from the nationwide organizations that frequently do subcontracting for national surveys, and that requires large amounts of start-up costs could produce 100,000 household surveys at $8.00 per household, is beyond my comprehension. I also think the contractor should have known that $800,000 to produce data for 100,000 households with these special requirements was also far under what the final costs of such a project could ever possibly be. And so, in fact, it has developed that the plan has been changed. There will no longer be twelve states, but rather ten will be involved. The size of the sample has been reduced from 100,000 households, and discussions now are focused around the number of fifteen thousand to thirty thousand households. The first stage in the sampling which was to do ten thousand households first and check to see if the assumption of clustering is correct, has now been dropped so all sampling is done on the untested assumption that undocumented aliens are clustered in the same areas as registered aliens.

What raises the largest question in my mind is whether the entire project can be properly monitored so that an evaluation of the validity and reliability of the data can be made. In order to protect anonymity, the original questionnaires will not be available from the Reyes Associates to the INS. Nor does INS have the capability to monitor the field work of the Reyes Associates to make sure that the terms of the contract are in fact being carried out by the major contractor, subcontractor, or any of the individuals hired to do the interviewing in the field. INS is not able to monitor the field work nor mount a large evaluation and editing program similar to the kinds of work done by, for example, the Census Bureau. The burden of evaluation to make sure that the terms of the contract and standards for survey research and data processing are carried out correctly by all parties down to the individual persons hired through subcontractors lies with the contractor. Because the questionnaires will not be available to the Immigration Service, there is no possibility for them to evaluate after the fact. Nor is it clear that there will be a serious evaluation of individual data collectors or subcontractors by Reyes Associates or third party auditors and such evaluations of field operations turned over to INS as part of the contract so that INS can make a judgment about the amount of reliability of the final information it receives on each of the ten states and the areas within them.

Because INS will not have access to the original data, will not carry out an evaluation program of the data being collected, and will not receive from Reyes Associates such an evaluation, it would seem to me that this contract should have included an audit by a third party of the work done by Reyes Associates in order to insure its validity and reliability and, more importantly, to estimate various sources of error and bias which may enter into the data set because of the inevitable problems involved in a large scale field operation such as is envisioned. These kinds of precautions to ensure both quality control in the field and evaluation of quality after the fact used by other survey organizations seem to be missing in this case. Since this is a one-shot survey, there seems to be very little incentive for Reyes Associates themselves to spend large amounts of contract money to insure validity and reliability and to develop estimates of error or bias (other than sampling errors) since they are not collecting base data (data which could be used again and again and, if incorrect, would lead to a customer's not using their services anymore, as is the case in commercial marketing or survey firms).

My basic problem is that we are left with a situation where we must assume that whatever is delivered by Reyes Associates is correct, accurate, valid, and reliable with no estimates of any sources of error other than the sample error used in the original sample design. I am not questioning or impugning the integrity of the Reyes Associates. However, I must point out that the simple precautions that are usually taken to insure and then to measure the quality of data are not in evidence on the part of INS or the contractor. This leads to concern for two reasons. First, there is the ordinary assumption that such precautions are an integral part of such a large-scale survey operation, especially if it is being labeled as a scientific exercise. Secondly, the previous use by INS of data and the labeling of it as scientifically reliable leaves something to be desired. The INS contracted with a firm called Lesko Associates for an estimate of undocumented immigrants. Using the Delphi technique, Lesko asked six people to estimate the number of undocumented aliens and did not require any of them to give any data to support their estimates. Those estimates were averaged out and the number, 8.2 million, was characterized by the Immigration and Naturalization Service in a news release as a scientifically defensible estimate of undocumented aliens. Given the complexity of the survey design in the case of the residential survey, the large numbers involved, even in 25,000 or so households, and the amount of data which will be produced, over-enthusiam and zeal may be induced, resulting in labeling the data as being more valid and reliable than in fact they are. A correct sampling design, with no guarantee of correct operations, and large amounts of data do not necessarily mean good data. It is for this reason that I raise these questions. I also recommend caution on the use of these data after they are collected, if the questions that I have raised are not addressed.

In preparing my remarks for publication, it occurred to me that one might suggest that an outside agency such as the National Academy of Science be contracted by the Immigration and Naturalization Service to review the work by the Reyes Associates in order to make an evaluation. Such a procedure is done by other agencies and in fact, the National Academy of Science is currently reviewing the plans for the 1980 Census, particularly in regard to decreasing the undercount.

Further, one of the purposes of the Carter Administration proposals to register and grant five-year temporary amnesty to undocumented aliens who entered between 1970 and 1977 was to get data to decide what to do with them after the five years. Perhaps we should inquire of INS and the contractor whether this study, which has similar purposes, could not perform the same function. Can we have information on the size, distribution, and characteristics of the undocumented aliens by the end of the year, of sufficient validity and reliability, verified by a National Academy of Science panel, to make policy decisions?

FOOTNOTES

[1] Ian R. H. Rockett, *Immigration, Ethnicity and Occupational Mobility: Recent Immigrants to the United States.* Unpublished Ph.D. dissertation, Brown University, 1977. See also Anthony A. H. Richmond, *Post-War Immigrants in Canada* (Toronto: University of Toronto Press, 1967).

PART III

RESEARCH NOTES ON CARIBBEAN MIGRANTS

AN EMPIRICAL NOTE ON THE SPATIAL DIFFUSION OF NURSES FROM THE COMMONWEALTH CARIBBEAN TO BRITAIN[1]

Simon B. Jones-Hendrickson

INTRODUCTION

Despite the shortcomings of migration data, two generally known econometric approaches to testing relationships among variables can still be applied. As far as migration is concerned, much of the work which exists focuses on descriptive statistics. While such a focus is useful, it merely provides a first approximation to the quantum of information that it is possible to obtain. For example, let us assume that the decision-makers in a country want to evaluate the impact of nursing services leaving their country and diffusing to other countries. The decision-makers may wish to consider the movement within the sphere of several other variables such as the person/land ratio, gross domestic product, unemployment/employment, and so on. Results deriving therefrom could feed into policy decisions concerning migration.

This paper is concerned with the application of quantitative techniques in migration research. The data concern the movement of nurses from the Caribbean to Britain.

Following this introductory section, I will deal with the methodological underpinnings of the bivariate analysis and the empirical results of this analysis. A brief analysis of the bivariate results is presented.

The thrust of the next section is on the multivariate analysis. Implicit in this section is an attempt to come to grips with the other factors which may have been omitted, poorly specified or otherwise not ascribed importance in the bivariate analysis. The final section concludes the work with the rationale underpinning the approach used in the paper, and the need to utilize similar approaches in migration analyses despite (a) the shortage of data; (b) the inaccuracy of data; and (c) the problems of missing observations, among other weaknesses which traditionally beset data aggregation.

METHODOLOGY AND EMPIRICAL RESULTS: THE BIVARIATE CASE

Time-series and cross-sectional analyses are used in this paper. Let me devote a few comments to cross-section models. Although they are basically the same as time series, they have a few peculiarities which call for special attention. Following Christ,[2] the time-series model regards *all of a certain set of time intervals* (for example, year) as describable by a single general set of equations. A cross-section model regards *all of a certain set of nurses*, say, as describable by a single general set of equations.

As an example, suppose we relate a nurse's behavior to population changes (X_t) in year t: we may write $Y_t = a + bX_t$. In this time-series example, we are assuming that the equation applies across the board - in other words, the parameters a and b and the form of the function do not change from year to year for a certain period of years. Of course, if we want to allow the intercept a and/or the slope b to change with time, we can utilize an equation that does not change from year to year, given that we specify the way in which the parameters will change over time. One simple way out is to assume that a and b are linear functions of time and then rewrite $Y_t = a + bX_t$ such that $Y_t = (a_o + a_1\ t) + (b_o + b_1 t)\ X_t$.[3] In this rewritten equation a and b will change, but a_o and b_o (parameters) will not, hence this equation holds without change.

A cross-section (behavioral) equation similar to the one above may be written as $Y_n = m + cX_n$. Here I am assuming that the equation holds for the given year without change for the nurses under consideration - in other words, m and c and the form of the equation do not change from one nurse to another. Naturally, as in the time-series case, we can allow m and c to change among nurses, and we can do this such that the equation we write applies to all nurses without change. This is contingent on the fact that we can express the change from one nurse to the next in a systematic fashion. For instance, we can consider the age of the nurse, the sex, family size, education, etc. We can do this by expressing m and c as functions of these factors. It should be obvious, then, that the work is concerned with mixed equations, since a model can be a time-series and a cross-sectional one.

As a demonstration, suppose in the two equations that a and m are equal and b and c are equal. Let Y_{it} be the i^{th} nurse's movement in period t_1, and X_{it} be the population pressures suffered by the i^{th} nurse in period t. The mixed equation can be written as:

$$Y_{it} = m + b\ X_{it}$$

This equation is a time-series one, because it is supposed to hold for a given nurse without change for many time periods. It is also a cross sectional case because it is supposed to apply to a given time period without change for several nurses. It is a mixed equation as used in this paper. In the analysis the general format of the equations is:

$$\text{Log } Y = \log a + b_i \log X_i + u$$

$i = 1, 2$ bivariate case

$= 1, 2 \ldots. 6$ in the multivariate case

Firstly, we present the results of the bivariate analysis. The data are in logs; the equations format is mixed (logs and ordinary data).[4] The ordinary data are included to accommodate the dummy variables included in the analysis. Since the dummy variable is a 0,1 dichotomy and since the log of zero is not defined, I used the mixed equations system.

Table 1 presents a schematic view of the equation in this bivariate analysis. It is followed by (1) a taxonomy of the variables (2) the regression results, and (3) a brief discussion of the results.

TABLE 1

SCHEMATIC VIEW OF BIVARIATE ANALYSIS: MIXED EQUATIONS

ENDOGENOUS	CONSTANTS	EXOGENOUS	DUMMY	ERRORS	
N	A	P	W_1	U	1
K	A	I	V_1	U	2
E	A	D	W_2	U	3
A	A	B	V_2	U	4
H	A	F	V_3	U	6
S	A	X	V_4	U	7
K	A	M	V_5	U	8
E	A	Q	W_3	U	9
E	A	J	W_4	U	10
E	A	Y	W_5	U	11

Where (1) N = Commonwealth Caribbean Nurses (CCN) entering Nursing Labor Market in Britain (NLM_m),

1960-1972

P = Commonwealth Caribbean (CC) Population, 1960-1972

W = 1, 1960-1965

= 0, 1966-1972

W is representing the influence of the British Government's White Paper that was introduced in August, 1965. It is hypothesized that this document affected the nurses' entry into the NLM_m after 1965, hence the period 1966-1972 is coded with a zero for the variable W. This holds true for all cases of W's.

(2) K = the change in nurses entering the NLM_m per 10,000 CC population

I = the change in the respective island population 1960-70

V = 0, if the sum of Caribbean nurses (C) and I declined

= 1, if C and I increased

=.5, if C and I had opposite signs

This definition of V holds for all cases where it appears relative to the endogenous and exogenous variables in the specific equations.

Equation 3. Where E = CCN per 10,000 population
D - Density of CC
W = 1, 1960-1965
= 1, 1966-1972

Equation 4. Where A = (CCN/Pop., 1960)/CCN/POP) on an island basis
B = (Density 1960/Density, 1970) on an island basis
V = 0, if A and B declined
= 1, if A and B increased
=.5, if A and B had opposite signs

Equation 5. Where H = the change in CCN per 100,000 population, 1960/70
F = the change in farmland per capita (1,000 acres), 1960-70
V = 0, if H and F declined
= 1, if H and F increased
=.5, if H and F had opposite signs

Equation 6. Where S = the change in CCN from the islands per 100,000 population
X = the change in cropland per 1,000 acres
V = 0, if S and X declined
= 1, if S and X increased
=.5, if S and X had opposite signs

Equation 7. Where K = the change in nursing input in the NLM per CC 10,000 population, 1960/1970
M = the change in the female component of the working force, 1960/1970
V = 0, if C and M declined
= 1, if C and M increased
=.5, if C and M had opposite signs

Equation 8. Where E = CCN per 100,000 population
Q = Gross Domestic Product (GDP) per capita of the CC in Eastern Caribbean Currency
W = 1, 1960-65
= 0, 1966-72

Equation 9. Where E = the diffusion of CCN into the NLM_m as defined here
J = the employed labor force in Britain
W = 1, 1960-65
= 0, 1966-72

Equation 10. Where E = CCN per 100,000 entering the NLM_m
Y = unemployment rate in Britain
W = 1, 1960-65
= 0, 1966-72

1. $$\begin{array}{l} \text{Log } N = -\ .6.0862 = 1.4909 \log P + .0369\ W \\ \qquad\qquad\qquad (1.4669) \qquad (.6134) \\ R^2 = \ .5396.\ F = 2.0642.\ SEE = .0520 \end{array}$$

2. $$\begin{array}{l} \text{Log } K = 19.4707 - 18.4321 \log I + .3189\ V \\ \qquad\qquad\qquad (2.9828)^* \quad (.8041) \\ R^2 = \ .6235.\ F = 4.4525.^*\ SEE = .4451 \end{array}$$

3. $$\begin{array}{l} \text{Log } E = 2.0965 - .5687 \log D + .0141 \log W \\ \qquad\qquad\qquad (-.3139) \qquad (\ .1282) \\ R^2 = .3297.\ F = .6098.\ SEE = .0780 \end{array}$$

4. $$\begin{array}{l} \text{Log } A = \ .4213 + .0759 \log B + .5715\ V \\ \qquad\qquad\qquad (.2160) \qquad (1.5396) \\ R^2 = .3993.\ F = 1.3280.\ \ SEE = .5219 \end{array}$$

5. $$\begin{array}{l} \text{Log } H = \ .4271 - .2508 \log F - .3589\ V \\ \qquad\qquad\qquad (-.5830) \qquad (-1.3600) \\ R^2 = .3668.\ F = 1.0881.\ \ SEE = .3730 \end{array}$$

6. $$\begin{array}{l} \text{Log } S = \ .1876 + 30.4189 \log X -.1776\ V \\ \qquad\qquad\qquad (1.6083) \quad (-.6537) \\ R^2 = .4778.\ F = 2.0707.\ \ SEE = .3522 \end{array}$$

7. $$\begin{array}{l} \text{Log } K = 1.2702 - .0888 \log M - .6108\ V \\ \qquad\qquad\qquad (-.1709) \qquad (-1.2146) \\ R^2 = .3965.\ \ F = 1.3061.\ \ SEE = 5226 \end{array}$$

8. $$\begin{array}{l} \text{Log } E = 2.6957 - .5087 \log Q - .0263\ W \\ \qquad\qquad\qquad (-1.5741) \quad (-.4365) \\ R^2 = .5177.\ \ F = 1.8309.\ \ SEE = .0728 \end{array}$$

9. $$\begin{array}{l} \text{Log } E = -45.2829 = 5.5301 \log J + .0375\ W \\ \qquad\qquad\qquad (2.4890)^* \quad (1.0515) \\ R^2 = \quad .6603.\ \ F = 3.8660.\ \ SEE = .0639 \end{array}$$

10. $$\begin{array}{l} \text{Log } E = -1.3229 - \ .4129 \log Y - .0283\ W \\ \qquad\qquad\qquad (-2.5628)^* \ (-.6279) \\ R^2 = \ .6699.\ F = 4.0699.^*\ SEE = .0631 \end{array}$$

ANALYSIS OF BIVARIATE RESULTS

In this part of the paper an attempt was made to quantify the relationship between the diffusion of nurses' labor services from the CC into the British Labor Market, and some changes in selected parameters which, qualitatively, seemed vital to the diffusion of nursing services and which have been discussed in the literature as vital to the process of labor diffusion. Bivariate analysis was used to determine the statistical relationship between the in-diffusion of CCN into the NLM_m and several parameters.

TABLE 2

SUMMARY OF MULTIPLE CORRELATION OF CCN IN THE NLM_m AND SOME PARAMETERS

	DIFFUSION OF CCN IN NLM_m AND		
	R^2	t	F
1. CC Population, 1960-72	.5396	1.4669	2.0642
2. Islands Population, 1960-72	.6235	2.9828*	4.4525*
3. Density of CC	.3297	- .3139	.6098
4. Density of Islands Level	.3993	.2160	1.3280
5. Farmland per capita	.3668	- .5830	1.0881
6. Cropland per capita	.4778	1.6083	2.0707
7. Female component of Working Force	.3965	- .1709	1.3061
8. GDP per capita	.5177	-1.5741	1.8309
9. Employed Labor Force in Britain	.6603	2.4890*	3.8660
10. Unemployment Rate in Britain	.6699	-2.5628*	4.0699*

*The starred values in the above tables indicate significant statistical results at the 5 percent level of statistical significance.

Of the parameters, three -- population pressure on an island basis, the magnitude of the employed labor force in Britain, and the unemployment rate (an average measure) -- all revealed significant t-values at the 5 percent level of significance. Population pressure in the Islands and the unemployment rate in Britain had F-values which were significant at the 5 percent level. Thus, from this very conventional approach to statistical analysis, population pressures in the Islands, the changes in the employed labor force, and the changes in the average unemployment rate in Britain were the significant push-pull factors causing the diffusion of nursing services out of the Commonwealth Caribbean labor market into the nursing labor market in Britain.

None of the dummy variables were significant at conventional 5 percent and 1 percent levels of significance. It may be implied, then, that the White Paper did not have any influence on nursing diffusion into the British nursing labor market. We now turn to a multivariate analysis of the data. This is done because the present bivariate analysis may be inadequate in capturing the salient features of significance between the variables.

METHODOLOGY AND EMPIRICAL RESULTS: THE MULTIVARIATE CASE

Because of the possible inherent limitations of the bivariate analysis, I present below six equations using multivariate analysis. The dummy variable W is included as a test at this higher level of sophistication although it was not significant in the bivariate case. Variables K, E, A, H, S, N, are functions of a selected set of variables:

K = change in the nurses entering the NLM in Britain per 10,000 CC population

E = CCN per 10,000 CC population

A = (CCN/Population, 1960)/(CCN/Population, 1970) on an island basis

H = Change in the CCN per 100,000 population, 1960/1970

S = Change in the CCN from the islands per 100,000 population

N = CCN entering the NLM in Britain, 1960-72.

X, M, Q, J, Y, W.

X = change in Cropland

M = Change in female component of working force, 1960/70

Q = GDP per capita in Eastern Caribbean dollars

J = employed labor force in Britain

Y = unemployment rate in Britain, 1960-65

W = 1, 1960-65

= 0, otherwise

TABLE 3

ENDO. VAR. K:

EXO. VAR.	EST. COEFF.	T. STAT.
CONSTANT	3.9866	.7716
X	- .2373	- .7382
M	.2923	.7067
Q	.0656	.0220
J	5.5550	2.6861**
Y	2.5805	.7387
W	.2680	.8181

R^2 = .7541 F = 2.5554 DW = 2.8255

**Sig @ .05

TABLE 4

ENDO. VAR. E

EXO. VAR.	EST. COEFF.	T. STAT.
CONSTANT	-6.7445	-1.0920
X	.1697	.9734
M	.6394	.3988
Q	.9376	.8650
J	.7940	.4377
Y	.2559	1.0299
W	.8109	1.1759

R^2 = .6846 F = 1.980 DW = 1.5884

TABLE 5

ENDO. VAR. A

EXO. VAR	EST. COEFF	T. STAT.
CONSTANT	.1254	.3763
X	.2229	1.0514
M	- .9293	-3.4059**
Q	.5564	.2828
J	.1106	.8109
Y	- .1255	.5469
W	.3449	.1596

R^2 = .7693 F = 2.7787 DW = 3.0360

TABLE 6

ENDO. VAR. H

EXO. VAR.	EST. COEFF	T. STAT.
CONSTANT	.9606	.7533
X	.1470	1.8112
M	.0064	.0621
Q	-1.2121	- .1609
J	- .1351	- .2587
Y	.7338	.8351
W	.3289	.3976

R^2 = .5357 F = .9615 DW = 2.7170

TABLE 7

ENDO. VAR. S

EXO. VAR	EST. COEFF.	T. STAT.
CONSTANT	3.0427	- .9005
X	.5153	2.3959*
M	.1524	.5504
Q	- .8869	- .4443
J	.7183	.5192
Y	2.5719	1.o004
W	.3632	1.6573

R^2 = .6300   F = 1.4187   DW = 3.4190

*Sig @ .1

TABLE 8

ENDO. VAR. N

EXO. VAR	EST. COEFF.	T. STAT.
CONSTANT	3.9094	11.2376
X	.0196	.8846
M	- .0076	- .2681
Q	- .5705	- 2.2776*
J	.2492	1.7496
Y	.2459	1.0259
W	.0498	2.2085*

R^2 = .8502   F = 4.7296   DW = 2.7896

*Sig @ .1

From the six equations represented in the tables the following are observed:

1. There are three significant t's but no F's at the conventional level of significance.
2. Only one Dummy Variable, W. is significant in this system.
3. The R^2's were mildly significant, ranging from .5357 to .8502. There was one value in the fifties, two in the sixties, two in the seventies, and one in the eighties. Five of the Durbin-Watson tests revealed "negative serial correlation," and one test was inconclusive, falling between the upper and lower limits of the d-values.

So, on the multivariate side, the employed labor force in Britain, the change in the female component of the work force in the Caribbean, and the per capita GDP in the Caribbean were all significant variables of diffusion determinants.

CONCLUSION

This paper was concerned with illustrating the application of quantitative analysis in the study of migration. The specific methods which were used were simple regression analysis and multiple regression analysis. Several variables were cataloged, as they were thought to be operational in impacting on the movement of nursing services from the Caribbean to Britain. While the data are drawn from this specific case, the procedures used in the paper are applicable to a variety of other features and factors in the area of migration.

The results of both approaches highlight the usefulness of the quantitative application to migration theories even though, from an econometric point of view, the broad base results may be disappointing. In the first instance, the paper did not consider the inherent problems of left-out variables in the bivariate case. While attempts were made to remedy this problem in the multivariate analysis, the additional problems of irrelevant variables, superfluous variables, and so forth, may have entered the multivariate analysis.[5]

The results of this paper could have been better. Nevertheless, if an appeal is made to *Centeris paribus*, the results indicate some seminal usefulness in attempting the codification of migration variables and the concretization of the push and pull factors of migration. That several other conceptual forms could have been used is obvious. However, the methods used are sufficiently general so that most technicians could operationalize them in their tests of migration theories.

While additional work in this area could seek to come to grips with the issues of distributed log models, serial correlation models or even simultaneous equation models, the point must be made that such sophisticated models may not appeal to as broad an audience as the regression models illustrated in this paper. Consequently, the overriding rationale for using the methods of regression analysis was to formally outline the methodology of specifying, estimating, testing, and hopefully forecasting policy decisions.

In all econometric relationships, such as those illustrated here, at times it is terribly difficult to isolate socio-economic relationships which impact on events and which influence behavior. Added to this problem is the fact that events are happening all of the time, simultaneously: to specify single equations as representative of certain relationships may not be ascribing a sufficient degree of reality to the interrelationships we wish to test and analyze.

In the final analysis, the application of quantitative analysis to migration theories is strongly encouraged. Not only should technicians consider similar models; they also should develop more quantitative approaches in migration research. In the long run decision-makers will benefit from such quantitative applications.

FOOTNOTES

[1] This is a revised version of a paper presented at a national conference entitled "The New Immigration: Implications for the United States and the International Community," sponsored by the Research Institute on Immigration and Ethnic Studies of the Smithsonian Institution and held in Washington, D.C., November 5-7, 1976. An edited version of that paper appears in Roy S. Bryce-Laporte (ed.), *Sourcebook on the New Immigration* (New Brunswick, N.J.: Transaction Books, 1979).

[2] Carl F. Christ, *Econometric Models and Methods.* New York: John Wiley and Sons, 1966.

[3] *Ibid.*

[4] By ordinary data I mean data that are not transformed; data as gathered from their sources.

[5] Potlouri Rao and R. L. Miller, *Applied Econometrics.* Belmont, California: Wadsworth Publishing Company, 1971.

ISSUES IN THE MEASUREMENT OF EXTERNAL MIGRATION

G. W. Roberts

The West Indian populations owe their existence to migration. These communities have been built up by a succession of waves of immigration, commencing with the entry of the original European settlers, followed by the introduction of European indentured workers, the slave trace, and ending in the smaller waves of indentured immigrants. It may be argued that the existence of such powerful and long persisting movements represented a settled policy - one of immigration designed to recruit and sustain a large labor force for the plantations.

Long before the end of the immigration stream, recruitment of labor from abroad had ceased to be a central theme in Caribbean policy and was being replaced by one stimulating emigration. From the latter half of the nineteenth century movements to Panama, Costa Rica and Cuba were developing. The period from the 1880s to the 1920s can be described as one of heavy emigration, despite the continuance of small increments of indentured immigrants until 1917. However, with reduced demand for labor in the Spanish countries and restrictions on entry into the United States which began in the 1920s, there was a cessation of external migration, which lasted up to the period following the Second World War. The emigration which appeared in the 1950s and continues to the present constitutes the most powerful outward movement experienced by these populations.

To sum up, during its early history the region was subject to heavy immigration, while within the present century the tendency has been for the demographic situation to be dominated by comparatively large outflows, at first to areas within and near to the Caribbean and and later to more distant countries, notably the United Kingdom and Canada.

Despite the economic and social importance of all these movements to the region, the records of their actual magnitude are meager; it is only in the case of indentured immigration that satisfactory records were maintained. Of course, this is nothing extraordinary in the history of external migration, as accurate data exist for relatively few countries. In the case of the West Indies, however, the problem is that the relative scale of these movements is immense by world standards. Thus in the case of many Caribbean populations, emigration has constituted a much greater source of loss than has mortality during the past two decades. In at least one case, the net emigration during the period from 1960 to 1970 is twice as great as the total loss due to mortality. These emphasize that even minor errors in estimates of numbers of migrants may have an important effect on the preparation of post-censal estimates in these small populations, whereas in larger populations, where the ratio of external migration to total population is very small, this source of decrement does not affect the validity of post-censal population estimates to the same extent.

Equally relevant to these societies is a knowledge of the composition of the emigration streams affecting them in recent times. Emigration is usually selective in one or more characteristics. Since it is generally confined to the population of working age and childbearing age, the effects on fertility and the working force are appreciable. In so far as selectivity stretches to the involvement of professional and skilled workers, as in the case of the movement to Canada, external migration assumes considerable significance from the economic and social standpoint. In this context it is said to constitute an aspect of the so-called brain drain. Manifestly no developing society can ignore the depletion of these sectors of its working force.

A knowledge of the extent and character of external migration is desirable not only from the standpoint of losses to the society; it is equally relevant to have corresponding information on immigrants. A count of general passenger movements is necessary, as only in this way can estimates of the volume of the tourist trade be obtained. Moreover, since some segments of the labor force have to be recruited from immigrants, information on the volume and characteristics of those introduced is again necessary. However, where the introduction of workers is now under strict control, calling for entry or work permits, it may not be necessary to seek to retrieve such data from migration records. In fact, more reliable statistics should be available from the Ministry controlling such movements.

Limitations of international statistics on external migration are notorious. Problems of recording relevant information, of retrieving data from official documents, of deciding on the basis of such material what the net movements amount to -- all these have been the sources of weakness in this class of statistics. But, in view of the magnitude of migration affecting Caribbean populations, failure to try to overcome these difficulties has grave disadvantages for these countries. Without some system of obtaining reasonably reliable counts of numbers involved from administrative records, post-censal population estimates have to be based wholly on births and deaths and therefore remain seriously deficient. In the case of Jamaica, for instance, where net emigration during the decade 1960-70 amounts to nearly 2 percent of the population each year, such estimates, excluding effects of migration, considerably overstate the true counts. More important, since probably only about 5 percent of the net emigration affects the population outside the age range 15-49, it can be said that the total outflow over the decade amounts to 40 percent of the population within this age range in 1960. Such emigration suffices to cause a small reduction in the island's population in this age segment between 1960 and 1970, and thus drastically curbs the overall growth rate in this island. Emigration on this scale is of such national significance that some reliable assessment of its magnitude and characteristics is an urgent requirement.

So far we have been discussing the Caribbean Islands, which have all been experiencing substantial emigration. But also relevant here is the experience of Bermuda, which, by contrast, has been receiving an appreciable influx of people in recent years. In fact, the net immigration over the past decade of nearly two hundred per year is at the rate of 4 percent of the total population, which shows that, by comparison with Jamaica, external migration plays a more powerful role as a determinant of population growth. In the absence of accurate estimates of immigration, the same strictures on post-censal estimates of population apply as in the case of Jamaica. However, because of the marked differences in age structure between these two populations, the net inflow experienced by Bermuda is equivalent to only 17 percent of the population aged 15-44.

Let us now turn to the question of whether the examination of the entire range of emigration data is feasible in the light of the current magnitude of the movements and levels of available resources. Probably in most of the islands the total number of passengers entering and leaving each year is not too large to permit the authorities to arrive at overall counts of both streams. But the preparation of tabulations showing characteristics based on total passenger movements is almost certainly beyond the capacity of most West Indian governments. In any event this may hardly be necessary, for if a count of the entire volume of external migration can be produced, it should be possible to draw up a sampling scheme which will give reasonable estimates of permanent emigrants and immigrants as well as of their principal characteristics.

For instance, in the case of Jamaica, it is probable that total passenger movements into and out of the country amount to about one million in a year. With new emigration during the decade 1960-70 averaging nearly thirty thousand per year, it may be inferred that about 6 percent of departures consist of permanent emigrants. In order to derive an estimate of the number of permanent emigrants with a precision of say 2 percent, therefore, it may be concluded that a sample of about 160,000 departure records is called for. With regard to immigration, since this forms a very small proportion of total arrivals, adequate separation of the material into permanent and temporary movers is possible with a much smaller sample. Thus if the proportion of immigrants among arrivals stands at about 1 percent, then the size of sample required, again on the basis of a precision of 2 percent, is of the order of 25,000. Processing of such a volume of migration data each year presents a formidable task, calling for substantial resources of both personnel and processing facilities. Of course, a less precise estimate, say about 5 percent, may be thought sufficient, in which case a sample of the order of 25,000 for departures and of four thousand for arrivals will be needed. Even handling these much smaller numbers poses substantial difficulties. However, the operation needed will be reduced somewhat if the entry of immigrants for employment is under a system of licensing or work permits, for in such a case the records of numbers introduced should be easily available from the administration of the relevant legislation.

In conclusion, it should be noted that so far as Bermuda is concerned, both inward and outward movements call for investigation. For, although there is a net balance inwards, the form of age structure both for 1960 and 1970 strongly suggests that a sizeable number of adolescents (aged 15-24) does leave the country. Here it seems essential to establish not only whether this represents a permanent loss to the population, but also the purpose behind their departure as well as the characteristics of those involved. An equally detailed investigation of the incoming stream is also justified, as this probably includes a large proportion of professional and skilled personnel. Although the actual number of emigrants and immigrants may be smaller than in the case of islands of comparable size in the Caribbean, the great volume of tourists to be dealt with for Bermuda means that here also sampling is needed.

NOTE ON LIMITATIONS OF DATA ON EXTERNAL MIGRATION IN THE EASTERN CARIBBEAN

G. W. Roberts

According to the 1970 Census of the Eastern Caribbean, the counts of population have been well below the estimates based on the 1960 population, on natural increase and on migration balances during the intercensal interval. Full assessment of the reliability of these census counts can be made only after certain basic tabulations are available. But in the light of the very close consistency between enumerated populations under fifteen at the 1960 Census and corresponding agreement in terms of numbers of births recorded as occurring during the year preceding the census and corresponding numbers based on registration data, it is highly unlikely that, in the absence of serious deterioration of standards of enumeration, these shortages in 1970 can be wholly ascribed to faulty field work. It is probable that the main source of the discrepancy noted is to be found in the records of external migration. Therefore, this seems to be an opportune moment to raise the vital issue of the adequacy of all types of external migration in the West Indies. Without reliable records of these movements, post censal estimates will continue to be defective. The importance of this component in the estimation of populations may best be illustrated by reference to the 1946-60 intercensal interval when net losses due to external migration greatly exceeded losses due to mortality in most of the region.

Even a cursory examination of some of the migration records of the Eastern Caribbean -- indicating very small losses during periods known to be characterised by heavy emigration -- suggests serious inadequacies. A full investigation of the reliability of these records calls for examinations at several levels. It is here proposed that investigations into the coverage, methods of collection and of tabulating migration records be instituted by Statistical Departments and Registrar Generals, working in conjunction with the agency responsible for collecting and processing migration data.

The present note is intended to focus attention on some of the issues involved in the proposed investigation. It is directed to two main phases of such an investigation: (1) the coverage achieved by existing systems of migration records, together with associated sources of leakages, and (2) the classification and presentation of migration records in the Windward Islands. The present discussion of coverage is based on an examination conducted in collaboration with the Deputy Registrar General of Grenada, George Brathwaite. In fact, he is still collecting material on the extent of the leakage, which from this inquiry is largely responsible for the under recording of emigration and the consequent overestimate of current population.

COVERAGE OF EXTERNAL MIGRATION

The first level of investigation should center on determining whether existing laws and procedures are adequate to ensure full coverage of external migration. This refers to both airports and seaports, as well as to all types of passenger movements at such centers. In particular, it must be ascertained whether there are any classes of passengers who do not have to comply with prevailing regulations, such as the completion of the Embarkation/Disembarkation card. Similarly it is essential to find out whether there are any classes of vessels entering or leaving ports, which do not come under the scrutiny of the migration authorities, and, if so, how this may affect migration records.

If even existing laws and procedures function adequately it is still possible that some sources of leakage have to be reckoned with, and it is necessary to try to locate them. A brief investigation carried out in Grenada with the assistance of George Brathwaite has identified two sources of leakage. It appears that in this country laws controlling airports and seaports ensure full coverage of all persons entering or leaving the country as bona fide passengers. Yet the net balance of passenger movements reveals a considerable difference between the estimated population and the preliminary census count. Amounting to more than 10 percent, this difference suggests some important limitations of available migration data.

An examination of operations of migration procedures at the airport suggests that it is unlikely that movements through the airport can contribute to such leakage, although, as will be seen presently, the system of classification of passengers adopted cannot ensure a reliable count of net loss through external migration. Therefore, such leakage as occurs may be traceable to movements at seaports. The close scrutiny exercised over the movements of international ships, that is passenger and cargo ships registered outside the Caribbean, as well as tourist ships, both in respect of passengers and crew members, makes it unlikely for leakage to be traced to movements on these ships.

The indication is that the major source of leakage at seaports centers around the "intercolonial" vessels, that is, vessels registered in Grenada or the West Indies, and moving within the Caribbean. According to Section 18 of Chapter 275 of the Laws of Grenada, such ships are allowed to carry "one statute adult for every two tons of her gross tonnage." These persons may be either passengers or crew of the ship. It is a custom of long standing for Granadians wishing to travel to neighboring islands to obtain from the Master of an intercolonial vessel permission to travel as a member of the crew of his ship. This is generally agreed to on the payment of a small charge. In this way any person, adult or child, male or female, may travel as a crew member, either leaving the island or entering it. Traveling in such a capacity a person does not have to comply with any migration regulation although the migration authorities insist on his paying the travel tax. His departure or arrival as a member of the crew is listed on the Certificate of Clearance lodged with the port authorities, and thus no contribution is made to any of the categories of passenger movements. Port authorities in Grenada confirm that this mode of travel is widely adopted by persons leaving the country. Provided the numbers taken on board do not exceed the stated ratio of persons to gross tonnage laid down in the laws of Grenada, masters are contravening no law in signing on passengers as temporary members of their crews.

That this source of leakage may be contributing substantially to unrecorded emigration is clear from the fact that each week between ten and twelve intercolonial ships of Grenadian registry leave the island for neighboring West Indian islands. For the most part, these range in size from thirty-five to fifty-four tons, but there are two vessels of much larger tonnage. It is thus possible that there may be as many as five passengers traveling as crew members on each such voyage.

A secondary source of loss, somewhat analogous to the foregoing, has been identified in Grenada. This arises out of the practice of visiting yachts signing on crew members when they are leaving Grenada. Again such persons are not listed as passengers, although it is known that this opportunity presents itself as a cheap and convenient means of emigrating from the island.

Probably these two sources contribute appreciably to the shortage in recorded migration, especially to outward movements. Travel of this type greatly facilitates persons unable to pay higher fares which they would have to pay as genuine passengers on other ships. Consequently, this is of great benefit to certain sections of the population. Nevertheless, if migration figures are to be of any use as a component in the preparation of adequate post-censal population estimates, then some system must be devised of identifying persons listed as crew members who are, in effect, temporary or permanent migrants.

The foregoing methods of being signed on as crew members must be differentiated from the more limited practice of recruitment as crew members on international ships. This is a complicated procedure and probably involves few Grenadians. It is doubtful whether the migration authorities include such members as emigrants even though they may be taking this opportunity to emigrate. However, this is a minor source of leakage. In the first place the numbers are extremely small. In the second place there is a strong possibility that such members of crews genuinely intend to return to Granada, which is their permanent residence.

PROCESSING AND TABULATION

The most important aspect of this phase of investigation is the type of coding applied to incoming and outgoing migration streams. Inasmuch as the police are the bodies controlling passenger movements, such coding as they devise is apparently intended to facilitate their keeping a check on all movements and, in particular, ensuring that all nonresidents entering the island eventually leave or enter for permanent settlement in accordance with laws of the country. Since the function of migration authorities is hardly ever that of deriving estimates of genuine loss or gain to the population of the country, the coding they employ seems generally insufficient to serve as genuine migration data. At least this is the inference to be drawn from the tabulations they produce. For instance, the tabulations available for Grenada consist merely of passenger movements, in terms of place of origin and place of destination. These are wholly inadequate as components of population loss, clearly understating the loss due to external migration which the population experiences. In Dominica, however, where tabulations in terms of immigrants and emigrants are prepared, the results are much better estimates of populations than is the case in other countries which have to depend on gross passenger movements in order to derive estimates of net migration balances.

It is instructive to discuss possible classifications of departures and arrivals. Here we are interested in passenger movements as presently recorded. Possible means of treating the sources of leakage previously identified will be taken up at a lacer stage.

Departures: A major category of this group covers persons leaving the country to settle permanently abroad; these are residents of the country. Whether going abroad to seek work, to join their relatives, or to study, such genuine emigrants must be distinguished from residents leaving the country for temporary purposes, such as business, holiday or study. A very considerable number of departures has to be classified as nonresidents; these will comprise tourists leaving for their country of normal residence, as well as other short term visitors (on holiday or business) leaving the country on the completion of their stay.

Arrivals: Here three broad divisions can be established. The first, returning residents, constitutes an important category and should roughly equal those who left their country of residence temporarily on business or holiday or for some other purpose and have returned to their country of normal residence. The other category covers visitors to the country, whether they are spending holiday, doing business or visiting for some other purpose; their distinguishing feature is that they are short stay entrants. The third category may be small in size and of a highly specialized nature; these are the genuine immigrants. Such persons may be taking up permanent residence in the country, or entering for the performance of a job which will take a long time to complete. Another type of genuine immigrant covers persons coming into the country for other purposes, especially those joining relatives already living in the country.

To summarize, the categories which may be usefully applied are:

Departures:		
	Residents:	Permanent emigrants. Temporary emigrants on business Temporary emigrants on holiday or other purposes.
	Nonresidents:	Tourists leaving the country Other temporary visitors leaving the country.
Arrivals:		
	Returning Residents:	Persons resident in the country who left previously on short periods and are now returning.
	Visitors:	Genuine tourists and other visitors on holiday. Those coming into the island for business or for other purposes.
	Immigrants:	These include all persons coming to live permanently in the island (or for periods in excess of one year). They may be coming to work or to join relatives already established in the country.

There should be certain rough balances between the outward and inward streams. In fact, all temporary emigrants, who are of necessity permanent residents of the country, should appear in the statistics of arrivals as returning residents. A time lag may have to be recognized here to take account of the time spent in the country by these visitors. Similarly, rough equality is to be expected between the category termed visitors and the category of nonresident departures. Therefore, the true net balance in external migration must rest on the difference between permanent emigrants and immigrants. The former constitute genuine additions to populations while the latter represent genuine losses.

It is doubtful whether anything is to be gained by detailed tabulations of visitors and returning residents on the one hand and departures of all nonresidents or temporary departures. For not only are they very numerous, but since their impact on the population is not permanent, there seems little point in subjecting them to close examination. Admittedly, however, for purposes of analyzing movements of tourists, a case can be made for some simple tabulations of visitors, such as place of residence and possibly also age and sex, although the latter two may not prove essential.

The principal interest lies in the two categories of permanent migrants. It is essential that these be closely analyzed in respect to origin or destination as well as in terms of the types of gains or losses to which the population is being subjected. Tabulations of these categories should cover age, sex, occupation, as well as origin or place of destination. Even the simplest tabulation which does no more than identify these two categories contributes to the preparation of more efficient estimates of net migration and hence makes for better population estimates, as is illustrated from the experience of the Dominica Census of 1970.

How the records which cover the two sources of leakage should be treated cannot be fully discussed at this stage. Much closer analysis of these categories must be offered. But perhaps all that may be necessary is the identification of residents of that country among members of crews of intercolonial vessels entering or leaving the country. In this way can be secured a net figure which may prove an adequate correction to that obtained from formal passenger movements. But the adequacy of such a course will depend on other aspects of the material which may emerge only after detailed study of data on crews of ships.

CONCLUDING ESSAY

QUANTITATIVE IMMIGRATION DATA, SCIENTIFIC KNOWLEDGE, AND PUBLIC POLICY: POSSIBILITIES, LIMITATIONS, AND INTERRELATIONSHIPS

Stephen R. Couch

INTRODUCTION

Immigration is not only of importance in the past history of the United States but in its continuing history as well. While a historical perspective instructs us that there are critical continuities between past and present migrations to this country, quantitative data and qualitative experience make it clear that the present immigration is not only movement to a host country and within a world system which is vastly different than during the times of major past immigration waves, but also involves persons with significantly different characteristics and from different countries and cultures than had been the case before.[1]

It has been increasingly recognized that sound social scientific research is needed both in order to further scientific theory and knowledge about migration and related fields[2] and make it possible to arrive at rational social policies concerning migration.[3] In order to carry out such research, it is necessary to have accurate data with which to work. But do we have such data? The papers in this volume are a preliminary attempt to answer this question and to explore some of the ways in which the quantitative data we do have can be used validly. After reading the papers, it is obvious that the present quality and availability of data on international migration leave much to be desired. And yet it is important to realize that even with the present limitations, certain possibilities for research still remain.

This paper attempts to move the consideration of quantitative immigration data and its uses to a more generalized and yet a more focused level in terms of methodological issues. The first two sections consist of a general discussion of the possibilities and limitations of quantitative data in terms of achieving scientific knowledge and informed public policy. This is followed by a summary assessment of immigration data in light of the previous sections' discussion, examining their quality, availability and present and future scientific and political potential. Finally, there is a brief discussion of some of the interrelationships between the processes of political policy making and scientific theory and research, and the implications of these interrelationships for immigration research. Throughout the paper, discussion is limited to major government data sources on immigration and immigrants as they use the sources which are the most general and most widely used, yet also the most controversial.

QUANTITATIVE DATA AND SCIENTIFIC THEORY

Possibilities

In his classic essay on the value of empirical research for sociological theory,[4] Robert Merton mentions five categories which help us understand the various ways in which research bears on theory. It is useful here to examine these categories with specific reference to quantitative data and the research which uses them.

The first category which Merton mentions is the verification of hypotheses.[5] Quantitative data and methods are very valuable in this regard. The use of quantitative data allows a rigor which qualitative methods cannot match, making verification (or falsification) of hypotheses more definitive. Of course, this assumes that the data are sound and appropriate to the theory, and the methods are also appropriate and are used correctly. Moreover, the use of quantitative data and methods makes possible attempts to forecast future trends and events which, if the forecasts prove accurate, are evidence in support of the theory from which they were derived, and, if the predictions do not come true, allow for the refinement of both theory and methods through adjustments in the original model.

For various reasons, including problems in the quality and availability of quantitative immigration data, and the nature of immigration theories,[6] relatively little quantitative work has been done which has explicitly attempted to verify or falsify theories. Notwithstanding the problems, however, the fact that valuable research can be done in this area is demonstrated in this volume by the paper by Barry Chiswick and the research note by Simon Jones-Hendrickson.[7]

The second path by which quantitative data can aid in theory building is through "serendipity," or the chance discovery of data which leads theory down new paths neither expected nor intended.[8] Quantitative methods are especially good at discovering surprising findings, whether through more advanced methods such as factor analysis or simply through the appearance of numbers which the present theory or theories cannot explain and which calls for striking out in new directions. The potential for this to take place in immigration research is great. Advanced quantitative methods have not yet been used to their fullest potential; alternative data sources and new ways to tap existing sources are being searched for; and imaginative field experiences for researchers are plentiful. All of these conditions make it likely that serendipity will take place.

Likewise, the appearance of numbers which will not go away can be cause for the "recasting of theory," or the extension of theory by the need to incorporate new facts into the conceptual schema.[9] One clear example of this in immigration research has been the discovery that the leading source countries of immigrants from the United States are not the world's poorest nations, as would be predicted by a simple economic push-pull theory of migration, but are underdeveloped nations which have begun modernization efforts, and of those, most are found to be in a dependency relationship to the United States.[10] And yet, the finding that extensive return migration to dependent countries takes place, shows that dependency theory is also inadequate as it stands, forcing an extension of it in order to accommodate the empirical data.[11]

Quantitative data and methods also aid in the "refocusing of theory"; i.e., the changing of the centers of interest regarding theory.[12] This can be accomplished either through the invention of new quantitative methods allowing data to be used differently than before, or from the making available of data which had either not previously been collected or had been restricted in terms of use, due to their condition or cost, or to limitations imposed upon them by their owner. An example of the refocusing of theory on the basis of the development of quantitative methods is the recently increased interest in emigration, due at least in part to the development of methods yielding more reliable estimates of the number of emigrants.[13] An example dealing with the data themselves will no doubt occur when the sample of alien address forms presently underway at the Immigration and Naturalization Service (INS) is completed and computer tapes are made available to the public.

Finally, interest in quantitative data and methods can create pressure for clarification of concepts which may be ambiguous or problematic.[14] The desire to measure concepts can force one to examine closely the meaning of the concepts to be measured. In terms of immigration research, it was pointed out by a number of papers in this volume that researchers must realize the fact that flow data on immigrants to this country are aggregated into legal categories by the collecting agency rather than into analytic categories; indeed, much of the data is unable to be reformulated into analytic concepts even from the raw state, given the nature of the raw data collected.[15] Moreover, attempts to do comparative work on immigration make it very clear that concepts differ across national boundaries; this realization has led not only to theoretical work on immigration concepts but to practical efforts (especially by the United Nations) to standardize the concepts used in collecting immigration data.[16]

Limitations

While quantitative data and methods are of significant value in our attempts to develop valid social scientific theories, it is critical that their limitations also be recognized. A number of them will be discussed here briefly.

First, a general problem should be addressed. Data are representations of reality which are farther removed from reality than they often seem to be. The seeming hardness of quantitative data helps create the problem, as it becomes very easy to equate the numbers themselves with reality. The same is true of numbers which are manufactured by use of complex quantitative procedures. Assumptions made in the collection, categorization and manipulation of numbers often are not made explicit, masquerading the fact that what seem to be simple numbers are really complex representations. As with ideas, numbers, a representation of reality, seem to become reality.[17] Therefore, theories built or relying on mathematical representations alone are liable to turn out to be built on a base of sand. Like ideas, numbers and their use must also be analyzed in terms of their social construction and their use in social structures and as part of social ideologies.

Another general point: data are representations of certain things at one particular point in time. It is difficult for them to capture the ever-changing nature of social reality. Of course, longitudinal studies using quantitative data are attempts to ameliorate this problem, but practical problems with such research often make it extremely difficult to carry out. Important inferences can be drawn from "one shot" studies,[18] but they cannot be taken as definitive.

Related to the above are the problems of comparability of data across time and space. The difficulty of obtaining accurate and comparable historical data on immigration and immigrants limits our ability to construct models which are valid over time.[19] This is especially important when researching the process of immigration and the various impacts of immigrants, as critical to any theory is an understanding of historical changes in patterns of movement, adjustment and conflict. What data do exist in these areas are often useful only in research involving large geographical areas and are unable to provide the detail needed to aid in theory construction. In terms of comparability across space, the inability of governments or international/transnational organizations to implement a comparable system of data collection on immigration and immigrants greatly impedes utility of quantitative data in aiding in the development of immigration theory, which by its very nature must be comparative.[20]

Then there are the problems of data collection, which in terms of immigration center on the fact that most quantitative data are collected by the federal government. Of course, this allows the very existence of data which otherwise would never be collected, and may be a good thing in itself. Not only may it be possible for researchers to use the data for scientific purposes, but the data can be used in such a way that benefits are derived by the populations under scrutiny as, for example, through the implementation of social programs and policies benefiting immigrants. At the same time the fact that immigration data are government data creates significant problems. Mainly, the data are not gathered for research purposes but for purposes of administration and social control.[21] While this fact in itself does not invalidate the scientific use of the data nor their possible utility in seeking scientific knowledge, it does have important implications. Ethically, it must be asked if government-collected data are likely to be used in favor of the people providing the data, or if the data are more likely to be used against those people to the benefit of others. In terms of research, as mentioned above concerning the INS, the questions asked and the categories into which the data are put are legal, not analytic, categories, limiting their scientific usefulness. While this is not true for the source of stock statistics on immigrants, the Census, the vast number of areas for which Census data are collected and the various political pressures brought to bear with regard to the extent to which certain areas are to be covered limits the Census's ability to collect information of relevance to researchers interested in immigrants.[22]

Moreover, three other factors are important concerning government data. In the first place, the simple fact that researchers lack control over the collection process makes it impossible for them to directly determine the reliablility and validity of those data.[23] Problems with the collection process may be completely unknown to the researcher who uses the data. This is complicated by the fact that it is the government which is doing the collecting, creating the impression (and at times the reality) that sometimes is in the best interests of the respondent to be something less than truthful. On the other hand, the collection and use of official data may be altered so as to aid the bureaucracies which are doing the collecting. Data must be seen as active, not passive, and as open to manipulation by the collectors and collectees.[24] The area of immigration is especially vulnerable to this problem, since the admission or status of immigrants and the existence and budget of certain bureaucracies depend on information which both sides have the ability to alter. To take two extremes, but not uncommon examples, the traffic in forged papers for persons trying to immigrate is not unsubstantial. Once recorded, the false data on those papers become part of the body of official immigration statistics, and are viewed as true by those using the statistics. On the other hand, INS officials have been known to use official yet groundless and inflated estimates of the number of illegal aliens in this country in order to enhance the position of INS in relation to other government bureaucracies competing for various kinds of support and power.[25]

One final point should be made concerning government collected data. It was stated above that the existence and availability of data can refocus theory into certain areas over others, thus aiding the development of scientific theory. There is another side to that coin. Such refocusing may divert attention from collecting and analyzing data which would be more valuable to theory than the data at hand. When the data at hand are official data gathered for non-scientific purposes, theoretical attention may be diverted away from areas of greatest scientific value and toward areas of non-scientific purposes, theoretical attention may be diverted away from areas of greatest scientific value and toward areas of non-scientific interest to the government. Moreover, areas of political sensitivity may be avoided because of the non-collection or non-availability of data, and this would have no correlation with possible scientific value. In this way, government collection and control over data per se can be seen as a variant of government's ability to influence scientific research topics through, for instance, control of research moneys,[26] posing a serious problem for the collection of data which would be useful in the development of certain theories of considerable scientific interest.

QUANTITATIVE DATA AND INFORMED POLICY

Possibilities

Scientific knowledge and theory building are not the only yardsticks against which the usefulness of quantitative data and methods in immigration research can be judged. It can also be asked how valuable data and research are for the formation of informed public policy dealing with immigration.

First, the potential for the use of scientific knowledge in formulating informed policies is, in theory, great. If we want policies to accomplish the goals that are set for them, then we must understand the complex relationships between variables involved in and related to the policy area. Scientific knowledge can help us gain that understanding. With it, policy makers can become free to develop policies which will accomplish the goals for which they are intended, and can come to be not dependent upon ideological misconceptions about the nature of social reality. It follows, then, that to the extent quantitative data and methodologies can increase our scientific understanding about immigration, its causes and effects, they have the potential to aid in the development of informed public policy.

A second and related way in which numbers and their use can aid policy is through program evaluation. By the development and use of social indicators, policy makers can discover whether or not the policies they have implemented work, allowing for modification of policies so as to better accomplish policy goals. The interaction between evaluation models, data and policies has the potential for continual refinement of policies on the basis of scientific knowledge.

Finally increasing the potential values discussed above is the fact that the government has the ability to collect vast amounts of quantitative data which any other organization or individual would find impossible to gather. The resources of government are great, and state power and coercion can be used to force the collection of information. Indeed, what quantitative data we have on immigration exists because of the coercive power of the government, as most is gathered through the use of legal requirements forcing individuals to fill out required forms.

Limitations

While the potential exists for quantitative data to be collected and methods to be used which would aid in the development and implementation of informed policy, limitations exist which seriously impair the realizing of this potential. Most were discussed above and/or in the paper by Cardenas earlier in this volume in the context of achieving scientific knowledge. The limitations are equally valid in terms of attempting to achieve informed public policy.

First, data collection and use fall prey to political pressures. Questions of what is to be collected are answered more on the basis of political pressures and conflicts and/or bureaucratic requirements than on what would be most useful for scientific or policy research. Examples abound. To take but one, the 1980 Census will drop the question which asked for the birthplace for the respondent's parents, a question of extreme usefulness for scientific and policy research in terms of adjustment of second generation immigrants. Apparently the decision to drop the question was taken because of political pressure to include material in other areas, not for any question of the usefulness of the item itself. Secondly, regardless of the data available, policy is usually made on the basis of political considerations rather than on the basis of scientific knowledge. Seldom do we find policy makers interested in supporting research in order to aid them in formulating opinions on issues and developing informed policy. Rather, data are used to justify policy opinions held by the policy makers, and "research" is supported which selects only the data and results consistent with previously held political positions.[27] Of course, this is a clear bastardization of the research process (either scientific or policy) in the ideal sense, but in reality, through political conflict, it is this bastardized research and use of data which is not only supported financially but is passed off as scientific research. In so doing, for practical purposes, true scientific research is devalued to the point where its claim for legitimacy in the policy arena becomes worthless. Data and research are used which support the political views of the policy makers, regardless of scientific merit. In turn, this fact plays itself back upon the policy research community, creating a self-fulfilling prophecy wherein firms carry out quasi-scientific research funded by government agencies and designed to give those agencies what they want and which those agencies use as if the research were independent and completely scientific, further destroying the possible utility of truly independent scientific research in terms of policy development. When research findings run counter to political opinion they are ignored.

Finally, much of the data collected are inappropriate for policy research, as they are collected to aid the bureaucratic functions of various agencies. And yet the very existence of data, appropriate or not, feeds into the problems discussed above, as whatever data exist have the potential of being used to support one or another political opinion. Arguments over immigration policy are replete with examples of the use of inappropriate data and methods, ranging from citing apprehensions of illegals as an indication of the magnitude of the number of illegals, to the construction of projections of population growth using figures which ignore emigration and include not only new entrants to the U.S. but those who are adjusting status.[28] Those who attempt to point out misuses may receive a forum in scientific circles but seldom have developed the political clout to be taken seriously among policy makers or to be given ample coverage in the communications media.[29]

For Scientific Theory

Even in this volume, immigration data have been characterized as a most useless set of data collected by the government in terms of usefulness for scientific research.[30] This is not true, as evidenced by other works in this volume or works cited by those who criticise government data themselves. While it is more than apparent that severe limitations are attached to any attempt to use immigration data in scientific research, evidence on certain important questions of scientific interest can be found through proper use of available statistics.

The data are appropriate for indicating gross trends in the stock and flow of the immigrant population in the United States, as well as in many other countries of the world.[31] Using such data in combination with statistics on other subjects, it is possible to generate quantitative evidence which can be useful in the development of social scientific theory. Of course, it must be remembered that the data are appropriate mainly for theories dealing with large geographic areas and which are "middle range" or "macro" in nature, and that problems such as the political nature of the data and lack of comparability of data of different countries greatly limit the extent to which quantitative data and methods can be useful scientifically. But within these limits, quality work is possible.

The problem of availability of data is at least as serious as the problem of quality. True, tabulated data are available in published form from INS, Census and other government agencies, as Kraly outlines. But the scientific usefulness of data in this form is limited, especially if verification of hypotheses is desired. The combination and manipulation of variables of the researcher's choice for the researcher's specific problem require access to data in an appropriate form, with the best form being that of computerized data sets.

Here, the problem of availability is serious. Some agencies (including Census) make user tapes available, and certain user-oriented private corporations (such as the non-profit DUALabs) serve as centralized repositories for such data sets and sell them to researchers at cost. Even so, the cost of acquiring and using large government data files is highly prohibitive without the availability of research monies, and here one returns to the political problems discussed above -- i.e., in seeking grants, the researcher's independence and control over the research topic, etc., are limited. In addition, for purposes of confidentiality, or because of lack of adequate agency staffing or budget, or the desire of an agency to maintain a monopoly over certain information, much data of scientific relevance are not made available to the non-governmental researcher. Much is never even put into a form whereby it would be scientifically useful to anyone.

The INS has been notorious in this regard. The agency has been enforcement-oriented, with its statistics and planning and evaluation branches being understaffed and not able to provide adequate help to the scientific community, nor to carry out nor sponsor scientifically useful research itself. Given the nature of the agency, the extent to which this situation *can* change is open to question, regardless of the intentions of any one commissioner or well-meaning competent employees (of which there are many). Nevertheless, certain improvements are taking place, including a project within the Planning and Evaluation Division which will make available user tapes of a substantial sample of Alien Address Reports for recent years, with the first tapes being ready in 1979. Also, should the Border Patrol be moved to the Treasury Department and Visa Office to INS as is being contemplated, this may allow the agency to concentrate on being of still more service to the scientific community (although this is anything but certain; such a bureacratic switch may, for instance, lead to a reduction in political clout for INS which could jeopardize its budget, and so on).

What of the future? Unfortunately, there is little indication that the quality of public data will be substantially improved. The data at INS are not collected primarily for scientific research so there is little impetus to improve their quality so long as bureaucratic needs are satisfied. As to the quality of stock data, political pressures inhibit Census's ability to make scientific considerations paramount. Improvement in the quality of immigration data will most likely have to come from sources other than officially collected information.[32]

The future of the availability of immigration statistics is a bit brighter. Partly because of the recent emergence of immigration as a serious political issue (to be discussed further below), pressures by the scientific community for the making available of what data do exist have been partially succcessful, especially at the INS. And, of course, the availability of 1980 Census data in a few years will be of aid in our attempts to scientifically understand this country's most recent wave of immigration. Active efforts on the part of researchers may also make the linking of certain data sets of interest to immigration researchers a reality.

For Informed Public Policy

In terms of the adequacy and quality of immigration data for informed policy, the problems above are compounded by the fact that illegal aliens are seen as the overriding policy issue dealing with immigration, and obtaining accurate information on this population is extremely difficult. The survey of illegal aliens[33] sponsored by INS and carried out primarily by J. A. Reyes Associates will undoubtedly provide information of some use to policy makers in terms of the characteristics of the foreign-born population, legal and illegal, but the scientific validity of any estimate of the number of illegal aliens in this country based upon the survey is highly questionable, to say the least.[34] Indeed, because of the necessity for the contractor to be altered in mid-stream, the usefulness of any of the data will have to be examined carefully. In any case, the policy emphasis on the class of immigrants for which quality information is hardest to obtain further limits the usefulness of quantitative data and research for policy formation.

Also added to this is the problem of currency of data in terms of stock information. Census data on immigrants are somewhat outdated by the time they are available, and are of very little usefulness by the end of a decade. Current Population Surveys do not cover migration in adequate depth to be of much use, and the number of foreign-born interviewed is very small. At present, no mechanism exists for following up on new immigrants to this country, so that current information could be available to complement the flow information collected by INS.

At the same time, political forces have indicated that they feel a need for better information on immigration and immigrants.[35] The development of immigration as a political issue has caused the lack of information on it to be felt by policy makers; so long as immigration remains a serious issue in political terms, the pressure for more information is liable to be felt. This likely will result in some improvement in the availability (and perhaps in the quality) of data available for the formulation of informed policy, though it is more likely to be found in sponsored research involving limited samples rather than in improvements in the major bureaucratic data sources. And, as was discussed above, whether informed policy will result from the existence of better data is another question altogether.

THE "NATURAL" HISTORY OF IMMIGRATION DATA

Although this paper has separated the questions of data useful for science and for policy, implicit throughout has been the argument that the two cannot really be separated. Indeed, in order to understand the nature of the data as well as their present and future conditions and the implications of their use, it is necessary to see them imbedded in the concrete institutional structures of both government and science. In conclusion, it may be useful to examine briefly what might be considered a natural history of movements toward and away from the improvement of official immigration data in terms of their potential scientific use.[36]

This natural history begins at a time when immigration is not seen as a particularly important political issue. Scientists may try to influence government to improve immigration statistics, but their power is weak and their results unsatisfactory. Policy makers do not view immigration data as inadequate or do not have the power to implement improvements against what are seen to be more pressing problems. Scientific research tends to be minimal, partly because of the state of the data, partly because immigration does not exist as a political issue and therefore research funds are not as available.

This is followed by a period in which immigration becomes a political issue due to changes in immigration volume or patterns and/or changes in the desires or needs of certain groups (especially powerful groups) which would benefit or lose from changing immigration patterns. These facts are transposed into the political arena, with various interest groups constructing an "immigration problem" in political consciousness. Various forms of interactions between policy makers and social scientists work toward defining the "problem" and a search is made for data by which it can be expressed, defined or studied, or by which various opinions can be supported. The amount and quality of data and research are found to be lacking. Research funds are made available, drawing more social scientists as individuals, consultants or members of private profit-oriented research firms, into the fray.

Next, a period ensues wherein there is much concern with immigration data and research. Forward strides toward improvement of data are made. Social scientists are listened to with more seriousness, and conflicts between interest groups over the validity of data and research findings lead toward some advances in theory and measurement. However, it must be remembered that what is occurring is primarily political in nature; science reaps some spinoffs, to be sure, but not without major difficulties. The political interest in the subject and the desires of various groups to emerge from political power struggles victorious, lead to major misuses of data (some of which were discussed above). Data collection may be altered so as to aid certain groups over others; data and research findings are blatantly and consciously misused in the interests of various groups; "research" firms more interested in profit than science produce research and data which satisfy a contract but invalidly manipulate numbers and/or findings. In all cases, these problems occur in the name of science, lending credence to misrepresentation and mistakes while at the same time devaluing quality scientific research in the eyes of policy makers and the general public.

The cycle is ended when immigration vanishes as one of the major political issues. Pressures for data improvement and for research from the political sector and organizations such as major foundations slacken, and research money dries up. Retrenchment occurs, along with attempts to salvage what was won, both politically and scientifically. Concerning the latter, data improvements made earlier are likely to remain, thereby providing rather permanent aid to the scientific community (assuming that community has and keeps access to the data). While political (and, hence, some scientific) interest shifts elsewhere, many scientists have become involved in immigration research, familiar with the data, and competent in methods of handling them. These benefits continue into the following period, which begins the cycle once again.

So there is a double bind involved in this process. The making of immigration into a political issue both is indispensible for the improvement of immigration data and their value to science, and undermines that value through the political misuse of data and research. Such is the nature of research within our scientific and governmental structures. For those of us involved in immigration research, it is essential that we neither give up and view the data with which we work as hopelessly tainted, nor ignore the serious problems confronting the data's present and future condition and use. Research with those data can and should go on, but must be sobered by the recognition of the limitations imposed by the nature of the structures within which those data are collected and within which they are used by ourselves.

We are now in the period in which immigration is seen as a major political issue. Consolidation of gains in the quality, availability and use of public data lies in the future, as do our best research efforts using those data. For now, it behooves us to enter actively into the political structures which collect and hold public immigration data in order to use what power we might have toward the end of improving those data for future use, as well as to fight as best we can to point out misrepresentations of science which are so prevalent during such periods. Only with such interest and action can we hope to be able to do the quantitative research which can greatly aid in the development of scientific theories and, just perhaps, can lead to better policies in a more rational future time.

FOOTNOTES

[1] Roy S. Bryce-Laporte, "The New Immigration and Its Caribbean Component: An Overview," presented in Hearings before the Select Committee on Population, U.S. House of Representatives, April 4, 1978, and "Visibility of the New Immigrant," *Society*, vol. 14, no. 6, September/October 1977. See also Robert Warren, "Volume and Composition of U.S. Immigration and Emigration," in Roy S. Bryce-Laporte (ed.), *Sourcebook on the New Immigration*. New Brunswick, New Jersey: Transaction Books, 1979.

[2] This was very apparent throughout the papers and verbal exchanges which took place at the first major conference on recent immigration to the United States. Titled "The New Immigration: Implications for the United States and the International Community," the conference was sponsored by the Research Institute on Immigration and Ethnic Studies and was held at the Smithsonian Institution on November 5-9, 1976. Proceedings are published in Roy S. Bryce-Laporte (ed.), *Sourcebook on the New Immigration, op. cit.*

[3] See S. M. Tomasi and Charles B. Keely, *Whom Have We Welcomed? The Adequacy and Quality of United States Immigration Data for Policy Analysis and Evaluation*. Staten Island, New York: Center for Policy Studies, 1975. The federal government's interest in the policy

implications of immigration research can be illustrated by the sponsoring of the Workshop on U.S. Immigration: Research Perspectives, sponsored by the Center for Population Research, National Institutes of Health, at the Belmont Conference Center, Elkridge, Maryland, May 16-18, 1977, and by the Hearings of the Select Committee on Population, *op. cit.*

[4] Robert K. Merton, "The Bearing of Empirical Research on Sociological Theory," in *Social Theory and Social Structure.* New York: The Free Press, 1957 (1949), pp. 102-17.

[5] While Merton mentions the verification of hypotheses, he does not discuss it in his essay because it is this function of research which is most widely recognized.

[6] On the latter, see Paul Meadows, "Immigration: A Review of Thematic Strategies and Research Models," in Roy S. Bryce-Laporte (ed.), *Sourcebook on the New Immigration, op. cit.*; and Elizabeth McLean Petras's article earlier in this volume.

[7] For a discussion of the theory upon which Jones-Hendrickson's research note is based see Simon Jones-Hendrickson, "Spatial Diffusion of Nursing Services from the Commonwealth Caribbean to Britain," in Roy S. Bryce-Laporte (ed.), *Sourcebook on the New Immigration, op. cit.*

[8] Merton, *op. cit.*, pp. 103-8.

[9] *Ibid.*, pp. 108-11.

[10] Roy S. Bryce-Laporte, "'Illegal' Caribbean Immigrants: Some Foreign Policy Implications for the United States," presented before the Sub-Committee on Inter-American Affairs, Committee on International Relations, U.S. House of Representatives, Washington, D.C.: May 23, 1978.

[11] This was pointed out by Elizabeth Petras above.

[12] Merton, *op. cit.*, p. 111-14.

[13] Robert Warren and Jennifer Peck, "Emigration from the United States: 1960 to 1970," presented at the Annual Meeting of the Population Association of America, Seattle, 1975; and Charles B. Keely and Ellen P. Kraly, "Recent Net Alien Immigration to the U.S.: Its Impact on Population Growth and Native Fertility," presented at the Annual Meeting of the Population Association of America, St. Louis, April 21, 1977.

[14] Merton, *op. cit.*, pp. 114-17.

[15] See the articles by Kraly, Shaw and Keely presented earlier in this volume.

[16] As discussed above in Heisel's paper.

[17] For a cogent discussion on the nature of ideas as representations of reality and on the use of ideas in ideologies, see Henri Lefebvre, *The Sociology of Marx*. New York: Vintage Books, pp. 59-88.

[18] As in Chiswick's paper above.

[19] For an imaginative study which illustrates the problems of historical data but also the possibilities of carrying out research using them, see Stephan Thernstrom, *The Other Bostonians: Poverty and Progress in the American Metropolis, 1880-1970*. Cambridge, Massachusetts: Harvard University Press, 1972.

[20] Concerning comparative data, for an interesting discussion of some problems in the collection of data faced by countries for which the major concern is identifying emigrants rather than immigrants, see the two research notes by G. W. Roberts above.

[21] This problem is discussed above by both Cardenas and Bryce-Laporte.

[22] For a discussion of this and other methodological problems of data gathered by bureaucracies, see Gideon

Sjoberg and Roger Nett, *A Methodology for Social Research.* New York: Harper and Row, 1968, pp. 187-93

[23] *Ibid.*, p. 191

[24] For a discussion of this problem in terms of evaluation research, see Nancy Cochran, "Grandma Moses and the 'Corruption' of Data," *Evaluation Quarterly*, vol. 2, no. 3 (August 1978), pp. 363-73.

[25] See Cardenas's paper in this volume for examples and a discussion of the latter process.

[26] Again, see Cardenas and Bryce-Laporte, above.

[27] To cite an example: a person in a research organization attached to a political party recently told me of a "study" the organization was doing on illegal immigrants' use of social services. I was asked if I could supply information supporting the "fact" that illegal immigrants are a significant drain on social services. Not only does this represent bad methodology (assuming one is looking for the truth through carrying out a study), but the preconceived conclusion is at complete variance with the evidence gathered on the subject. (For a summary of the evidence, see Wayne A. Cornelius, *Mexican Migration to the United States: Causes, Consequences, and U.S. Responses.* Cambridge, Massachusetts: Massachusetts

Institute of Technology (Center for International Studies Migration and Development Study Group), July 1978, pp. 84-90.)

[28] For one example, see the projections given in the table, "Illegal Immigrants and the U.S. Population," p. 117 in John D. Huss and Melanie J. Wirken, "Illegal Immigration: The Hidden Population Bomb," *The Futurist*, April 1977, pp. 114-20. Not only is emigration ignored, but 800,000 permanent illegal aliens are assumed to enter each year, "according to INS estimates," the basis of which is not given.

[29] In terms of the media, the coverage of social scientific research is severely screened usually so as to conform to prevailing ideologies and/or to create or reinforce issues in order to sell the newspapers, television news programs, or whatever. Regarding immigration, this leads to stories emphasizing immigration as a "problem" for U.S. society or to human interest stories of immigrants, not sober analysis drawing on scholarly research. A case in point is the lack of media coverage of the first major conference on recent U.S. immigration ("The New Immigration: Implications for the United States and the International Community," sponsored by the Research Institute on Immigration and Ethnic Studies, Smithsonian Institution, November 15-17, 1976).

[30] Cardenas and Petras make this claim.

[31] For comparative Caribbean cases, see the research notes by Jones-Hendrickson and Roberts.

[32] Although often not applicable for researching the same questions, other sources of information do, or can, exist. These either can tap into the government collection process in some way, or be independent of it. Several methods of obtaining information are suggested or implied above by Heisel, Petras, Roberts and Hunt.

[33] As discussed above by Leon Hunt.

[34] See Charles Keely's discussion earlier in this volume.

[35] Such a realization is evident throughout the transcript of the Hearings of the House Select Committee on Population, 95th Congress, 2nd Session, April 4-7, 1978, as well as through the formation and work of the Interagency Task Force on Immigration.

[36] For a discussion of the concept of "natural history" as related to immigration, see the transcript of the first planning session for the RIIES bicentennial conference on the new immigration in Roy S. Bryce-Laporte (ed.), *Supplement to the Sourcebook on the New Immigration.* Washington, D.C.: Smithsonian Institution (Research Institute on Immigration and Ethnic Studies), 1979.

APPENDIXES

APPENDIX A

SHERATON PARK HOTEL, WASHINGTON, D.C.

19TH ANNUAL CONVENTION OF THE INTERNATIONAL STUDIES ASSOCIATION

RESEARCH INSTITUTE ON IMMIGRATION AND ETHNIC STUDIES

WEDNESDAY, FEBRUARY 22, 1978-1:30 p.m.

OPEN SESSION:

"Quantitative Data and Research on International Migration"

ELLEN PERCY KRALY (Fordham University) - *A summary and evaluation of the major sources of immigration data held by the United States government*

DONALD HEISEL (Population Division, The United Nations) - *A summary and evaluation of the major sources of immigration data held by other countries and the United Nations*

GILBERT CARDENAS (University of Texas at Austin) - *A critical discussion of the implications of social scientists using government data collected primarily for non-research purposes*

ELIZABETH MCLEAN PETRAS (State University of New York at Binghamton) *A discussion of the world systems perespective, its approach to international migration, and its needs for data and a methodology to test and elaborate its theory*

DISCUSSANT: WILLIAM MCGREEVEY (Battelle Institute)

PRESIDER: STEPHEN R. COUCH (RIIES)

THURSDAY, FEBRUARY 23, 1978-9:00 a.m.

CLOSED SESSION:

"Workshop on Quantitative Data and Research on International Migration"

LEON HUNT (J. A. Reyes Associates) - *A discussion of the methodology and implications of the INS survey of illegal aliens*

BARRY R. CHISWICK (Hoover Institution, Stanford University) - *A summary of his research on the earnings of immigrants to the United States*

VAN B. SHAW (The Colorado College) - *A summary of his research on American expatriation*

DISCUSSANT: **CHARLES B. KEELY** (The Population Council)

PRESIDER: **STEPHEN R. COUCH** (RIIES)

FOCUS

The workshop is a follow-up to the presentations of the Wednesday session. The presentation on the survey of illegal aliens will present certain unique questions of methodology as well as certain ethical questions. The other two presentations will focus on the researchers' experiences in attempting to find and to use data appropriate to their research tasks.

Discussion at the workshop will center on the following three sets of questions:

1. In terms of the research presentations, what sources of data are available which may have been missed by the researchers? Were the data used appropriately? Could they have been used better? What implications do the researchers' experiences hold for the relationships between non-governmental social scientists and government employees responsible for statistics on immigration and immigrants?

2. What are some of the ethical problems involved in the collection and use of data on immigration and immigrants? How are research issues defined, and by whom? What are the personal consequences of the use of data? What are the ethical issues of using non-verifiable or low quality data to reach even tentative research conclusions? In what ways does this distort reality?

3. How can the quality and availability of immigration data be improved? How can dissemination about available data be facilitated? What organizational structures would facilitate these goals?

APPENDIX B

RESEARCH INSTITUTE ON IMMIGRATION AND ETHNIC STUDIES

Smithsonian Institution, Washington, D.C. 20560

Present and Forthcoming Publications

Bibliographic Studies

Recent Immigration to the United States: The Literature of the Social Sciences compiled by Paul Meadows, Mark LaGory, Linda Leue, and Peter Meadows (RIIES Bibliographic Studies No. 1, 1976).

Pacific Migration to the United States: Trends and Themes in Historical and Sociological Literature by Shirley Hune (RIIES Bibliographic Studies No. 2, 1977).

Special Study

Culture, Disease, and Stress Among Latinos by Lucy M. Cohen (RIIES Special Study, In press.)

Occasional Papers

Caribbean Immigration to the United States edited by Roy S. Bryce-Laporte and Delores M. Mortimer (RIIES Occasional Papers No. 1, 1976).

West Indian Labor Migration to Latin America: Historical and Sociological Perspectives edited by Roy S. Bryce-Laporte (RIIES Occasional Papers No. 2, Forthcoming).

Research Notes

Exploratory Fieldwork on Latino Migrants and Indochinese Refugees edited by Roy S. Bryce-Laporte and Stephen R. Couch (RIIES Research Notes No. 1, 1976).

Quantitative Data and Immigration Research edited by Stephen R. Couch and Roy S. Bryce-Laporte (RIIES Research Notes No. 2, 1979).

Contemporary Studies of the Black Female and the Migratory Experience in the United States (with Bibliographic Appendix) edited by Delores M. Mortimer and Roy S. Bryce-Laporte (RIIES Research Notes No. 3, Forthcoming).

Special Publications

Sourcebook on the New Immigration: Implications for the United States and the International Community edited by Roy S. Bryce-Laporte with assistance of Delores M. Mortimer and Stephen R. Couch (Transaction Books for the Smithsonian Institution, 1979).

Sourcebook on the New Immigration: Supplement edited by Roy S. Bryce-Laporte with assistance of Delores M. Mortimer and Stephen R. Couch (RIIES, 1979).

APPENDIX C

NOTES ON CONTRIBUTORS

Roy S. Bryce-Laporte is Director of the Research Institute on Immigration and Ethnic Studies of the Smithsonian Institution.

Gilbert Cardenas is an Assistant Professor of Sociology at the University of Texas at Austin.

Barry R. Chiswick is a Research Professor in the Department of Economics and Survey Research Laboratory at the University of Chicago at Chicago Circle.

Stephen R. Couch is Research Coordinator of the Research Institute on Immigration and Ethnic Studies of the Smithsonian Institution.

Donald F. Heisel is Acting Coordinator of World Population Conference Implementation in the Population Division of the United Nations.

Leon Hunt is a consultant who was employed by J. A. Reyes Associates to work on the Survey of Illegal Aliens.

Simon B. Jones-Hendrickson is an Assistant Professor of Economics, and a Research Associate at the Caribbean Research Institute, College of the Virgin Islands.

Charles B. Keely is an Associate at the Center for Policy Studies of the Population Council.

Ellen Percy Kraly is a Lecturer in the Department of Sociology at Cornell University.

Elizabeth McLean Petras is a Research Associate at the Fernand Braudel Center of the State University of New York at Binghamton.

George W. Roberts is a Professor of Demography in the Department of Sociology at the University of the West Indies, Mona Campus.

Van B. Shaw is a Professor of Sociology at The Colorado College.

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